MITSUBISHI

Integrated FA Software

Setting/Monitoring Tools for the C Controller Module *Version 4*

Operating Manual

Integrated FA Software SW4PVC-CCPU-E

●SAFETY PRECAUTIONS●

(Read these precautions before using this product.)

Before using this product, please read this manual and the relevant manuals carefully and pay full attention to safety to handle the product correctly.
The instructions given in this manual are concerned with this product only. For the safety instructions of the programmable controller system, please read the CPU module user's manual.

In this manual, the safety precautions are classified into two levels: "⚠ WARNING" and "⚠ CAUTION".

⚠WARNING	Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.
⚠CAUTION	Indicates that incorrect handling may cause hazardous conditions, resulting in minor or moderate injury or property damage.

Under some circumstances, failure to observe the precautions given under "⚠ CAUTION" may lead to serious consequences.
Observe the precautions of both levels because they are important for personal and system safety.

Make sure that the end users read this manual and then keep the manual in a safe place for future reference.

[Design Precautions]

⚠WARNING

- Configure safety circuits external to the C Controller module to ensure that the entire system operates safely even when a fault occurs in the external power supply or the C Controller module. For the following controls, configure an interlock circuit in the user program to ensure that the entire system will always operate safely.
  (1) Changing data of the running C Controller module from the development environment (personal computer) connected
  (2) Changing the operating status
  (3) Operating from the development environment (personal computer)
  Especially, in the case of control from an external device to a remote C Controller module, immediate action cannot be taken for a problem on the C Controller module due to a communication failure. To prevent this, configure an interlock circuit in the user program, and determine corrective actions to be taken between the external device and C Controller module in case of a communication failure.

[Setup and Maintenance Precautions]

⚠WARNING

- Configure safety circuits external to the C Controller module to ensure that the entire system operates safely even when a fault occurs in the external power supply or the C Controller module. For the following controls, configure an interlock circuit in the user program to ensure that the entire system will always operate safely.
  (1) Changing data of the running C Controller module from the development environment (personal computer) connected
  (2) Changing the operating status
  (3) Operating from the development environment (personal computer)
  Especially, in the case of control from an external device to a remote C Controller module, immediate action cannot be taken for a problem on the C Controller module due to a communication failure. To prevent this, configure an interlock circuit in the user program, and determine corrective actions to be taken between the external device and C Controller module in case of a communication failure.

⚠CAUTION

- Before performing online operations (especially, program modification, forced output, and operation status change) for the running C Controller module from the peripheral connected, read relevant manuals carefully and ensure the safety.
  Improper operation may damage machines or cause accidents.

●CONDITIONS OF USE FOR THE PRODUCT●

(1) Mitsubishi C Controller system ("the PRODUCT") shall be used in conditions;
i) where any problem, fault or failure occurring in the PRODUCT, if any, shall not lead to any major or serious accident; and
ii) where the backup and fail-safe function are systematically or automatically provided outside of the PRODUCT for the case of any problem, fault or failure occurring in the PRODUCT.

(2) The PRODUCT has been designed and manufactured for the purpose of being used in general industries.
MITSUBISHI SHALL HAVE NO RESPONSIBILITY OR LIABILITY (INCLUDING, BUT NOT LIMITED TO ANY AND ALL RESPONSIBILITY OR LIABILITY BASED ON CONTRACT, WARRANTY, TORT, PRODUCT LIABILITY) FOR ANY INJURY OR DEATH TO PERSONS OR LOSS OR DAMAGE TO PROPERTY CAUSED BY the PRODUCT THAT ARE OPERATED OR USED IN APPLICATION NOT INTENDED OR EXCLUDED BY INSTRUCTIONS, PRECAUTIONS, OR WARNING CONTAINED IN MITSUBISHI'S USER, INSTRUCTION AND/OR SAFETY MANUALS, TECHNICAL BULLETINS AND GUIDELINES FOR the PRODUCT.
("Prohibited Application")
Prohibited Applications include, but not limited to, the use of the PRODUCT in;
- Nuclear Power Plants and any other power plants operated by Power companies, and/or any other cases in which the public could be affected if any problem or fault occurs in the PRODUCT.
- Railway companies or Public service purposes, and/or any other cases in which establishment of a special quality assurance system is required by the Purchaser or End User.
- Aircraft or Aerospace, Medical applications, Train equipment, transport equipment such as Elevator and Escalator, Incineration and Fuel devices, Vehicles, Manned transportation, Equipment for Recreation and Amusement, and Safety devices, handling of Nuclear or Hazardous Materials or Chemicals, Mining and Drilling, and/or other applications where there is a significant risk of injury to the public or property.

Notwithstanding the above, restrictions Mitsubishi may in its sole discretion, authorize use of the PRODUCT in one or more of the Prohibited Applications, provided that the usage of the PRODUCT is limited only for the specific applications agreed to by Mitsubishi and provided further that no special quality assurance or fail-safe, redundant or other safety features which exceed the general specifications of the PRODUCTs are required. For details, please contact the Mitsubishi representative in your region.

INTRODUCTION

Thank you for purchasing the C Controller module.
Before using this product, please read this manual carefully and develop familiarity with the functions and performance of the C Controller module to handle the product correctly.

RELEVANT MANUALS

The following manuals are relevant to this product.
Order each manual as needed, referring to the table below.

Manual name <Manual number, code>	Description
MELSEC-Q C Controller Module User's Manual <SH-081130ENG, 13JZ75>	The manual describes system configuration, specifications, functions, handling methods, wiring, troubleshooting, and programming and function of the C Controller module.
CW Workbench Operating Manual <SH-080982ENG, 13JU71>	The manual describes system configuration, specifications, functions, and troubleshooting of CW Workbench.
CW-Sim Operating Manual <SH-081159ENG, 13JU77>	The manual describes system configuration, specifications, functions, and troubleshooting of CW-Sim.
GX Works2 Version 1 Operating Manual (Common) <SH-080779ENG, 13JU63>	The manual describes the system configuration of GX Works2 and the functions common to Simple project and Structured project such as parameter setting, operation method for the online function.
GX Works2 Version 1 Operating Manual (Intelligent Function Module) <SH-080921ENG, 13JU69>	The manual describes the methods of intelligent function module for such as parameter setting, monitoring programs, and predefined protocol support function in GX Works2.
QCPU User's Manual (Hardware Design, Maintenance and Inspection) <SH-080483ENG, 13JR73>	The manual describes specifications of the CPU module, the power supply module, the base unit, the extension cable, the memory card, etc.
QCPU User's Manual (Multiple CPU System) <SH-080485ENG, 13JR75>	The manual describes overview, system configuration, I/O number, communication between CPU modules, and communication with I/O module/ intelligent function module of multiple CPU system.
Q Corresponding MELSECNET/H Network System Reference Manual (PLC to PLC network) <SH-080049, 13JF92>	The manual describes the PLC-to-PLC network specifications, preparatory procedures and settings, parameter setting, programming, and troubleshooting for the MELSECNET/H network system.
CC-Link IE Controller Network Reference Manual <SH-080668ENG, 13JV16>	The manual describes system configurations, performance specifications, functions, handling instructions, wiring, and troubleshooting for the CC-Link IE Controller Network system.
MELSEC-Q CC-Link IE Field Network Master/Local Module User's Manual <SH-080917ENG, 13JZ47>	The manual describes system configurations, performance specifications, functions, handling instructions, wiring, and troubleshooting for the CC-Link IE Field Network system.
MELSEC-Q CC-Link System Master/Local Module User's Manual <SH-080394E, 13JR64>	The manual describes system configurations, performance specifications, functions, handling instructions, wiring, and troubleshooting for the CC-Link modules.
CC-Link/LT Master Module User's Manual <SH-080351E, 13JR62>	The manual describes system configurations, performance specifications, functions, handling instructions, wiring, and troubleshooting for the CC-Link/LT modules.

Remark

Manuals in printed form are sold separately for single purchase. Order a manual by quoting the manual number (model code) listed in the table above.

Memo

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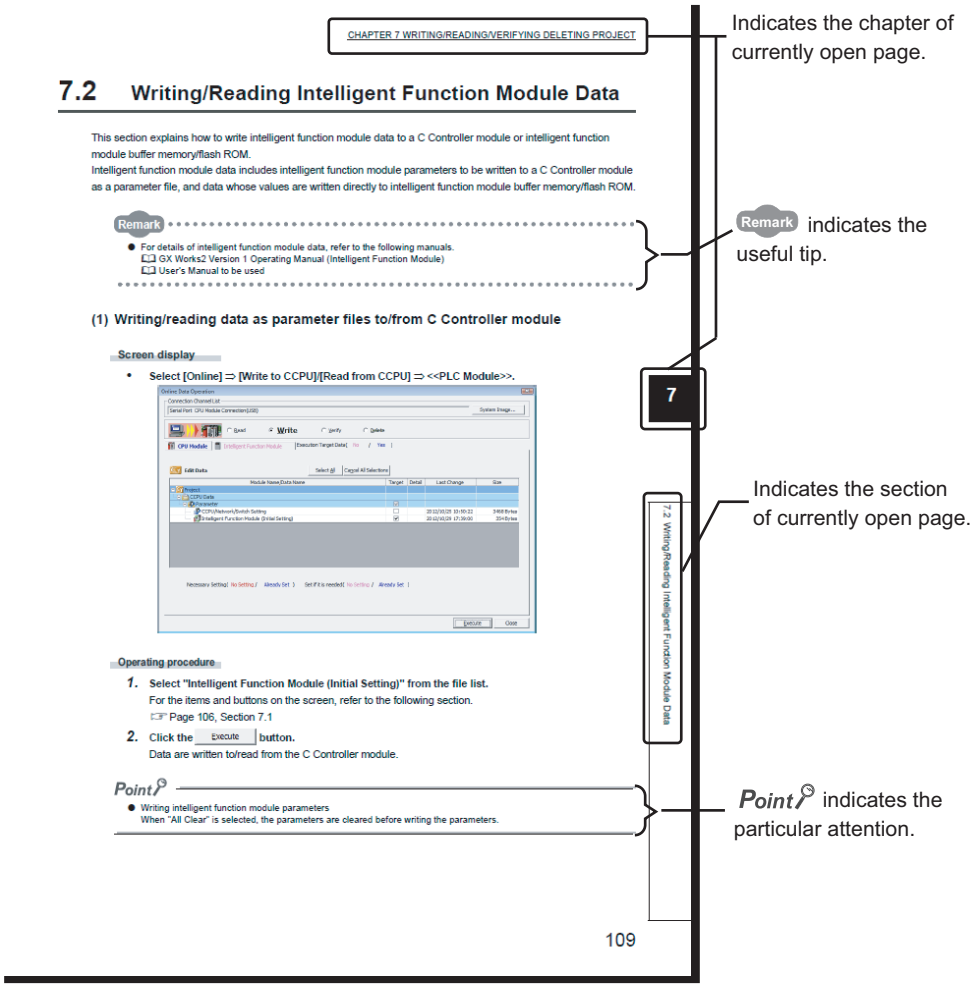
HOW TO READ THIS MANUAL

The following explains the page composition and symbols in this manual.
The content of the example page used here are different from the actual content for the intention of explaining how to use this manual.


CHAPTER 7 WRITING/READING/VERIFYING DELETING PROJECT
Indicates the chapter of currently open page.
7.2 Writing/Reading Intelligent Function Module Data
This section explains how to write intelligent function module data to a C Controller module or intelligent function module buffer memory/flash ROM.
Intelligent function module data includes intelligent function module parameters to be written to a C Controller module as a parameter file, and data whose values are written directly to intelligent function module buffer memory/flash ROM.
Remark
For details of intelligent function module data, refer to the following manuals.
GX Works2 Version 1 Operating Manual (Intelligent Function Module)
User's Manual to be used
Remark indicates the useful tip.
(1) Writing/reading data as parameter files to/from C Controller module
Screen display
Select [Online] ⇒ [Write to CCPU]/[Read from CCPU] ⇒ <<PLC Module>>.
7
Indicates the section of currently open page.
7.2 Writing/Reading Intelligent Function Module Data
Operating procedure
1. Select "Intelligent Function Module (Initial Setting)" from the file list.
For the items and buttons on the screen, refer to the following section.
Page 106, Section 7.1
2. Click the Execute button.
Data are written to/read from the C Controller module.
Point
Writing intelligent function module parameters
When "All Clear" is selected, the parameters are cleared before writing the parameters.
Point indicates the particular attention.
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Operating procedure

Three types of descriptions are used in this manual as below:

(1) When the operation is performed with a single step

- **Select [Project] ⇒ [Intelligent Function Module] ⇒ [New Module].**

(2) When the operation is performed with multiple steps

1. **Select the intelligent function module to be deleted from the Project view.**
2. **Select [Project] ⇒ [Intelligent Function Module] ⇒ [Delete Module].**
   The selected intelligent function module is deleted.

(3) When the operation can be performed by more than one method

- **Select "Project" menu ⇒ "Intelligent Function Module".**
- **Select Project view ⇒ "Intelligent Function Module".**

The following shows the symbols for the operations used in this manual.

Symbol	Description	Example
[ ]	Menu name on a menu bar	[Diagnostics]
" "	Screen name, item name on a screen	"parameter"
<< >>	Tab name on a screen	<<Multiple CPU Setting>>
OK	Button on a screen	OK
	Keyboard key	F2
☞	Reference page	–
🕮	Reference manual	–

GENERIC TERMS AND ABBREVIATIONS

This manual uses the generic terms and abbreviations listed in the following table unless otherwise noted.

Generic term/abbreviation	Description
C Controller module	Generic term for Q24DHCCPU-V and Q24DHCCPU-LS In principle, 'C Controller module' indicates Q24DHCCPU-V and Q24DHCCPU-LS. When the classification is needed for such as comparison with other C Controller modules, 'Q24DHCCPU-V' and 'Q24DHCCPU-LS' is mentioned.
Q24DHCCPU-V	Abbreviation for Q24DHCCPU-V C Controller module
Q24DHCCPU-LS	Abbreviation for Q24DHCCPU-LS C Controller module
Q12DCCPU-V	Abbreviation for Q12DCCPU-V C Controller module
C Controller system	Generic term for the system where the C Controller module is mounted
Setting/monitoring tools for the C Controller module	Abbreviation for Setting/monitoring tools for the C Controller module (SW4PVC-CCPU) In principle, 'Setting/monitoring tools for the C Controller module' indicates SW4PVC-CCPU. When the classification is needed for such as comparison with other tools, 'SW4PVC-CCPU' is mentioned.
SW3PVC-CCPU	Abbreviation for Setting/monitoring tools for Q12DCCPU-V
VxWorks	Product name of the real-time operating system manufactured by Wind River Systems, Inc.
CW Workbench	Generic term for the engineering tools for C Controller shown below • Q12DCCPU-V SW1DND-CWWLQ12-E, SW1DND-CWWLQ12-EZ, SW1DND-CWWLQ12-EVZ • Q24DHCCPU-V SW1DND-CWWLQ24-E, SW1DND-CWWLQ24-EZ, SW1DND-CWWLQ24-EVZ
Q series	Abbreviation for Mitsubishi programmable controllers, MELSEC-Q series
L series	Abbreviation for Mitsubishi programmable controllers, MELSEC-L series
AnS series	Abbreviation for Mitsubishi programmable controllers, compact MELSEC-A series
Base unit	Generic term for the main base unit and extension base unit.
Extension cable	Generic term for QC05B, QC06B, QC12B, QC30B, QC50B, and QC100B extension cables
Power supply module	Generic term for Q series power supply module Q61P-A1, Q61P-A2, Q61P, Q61P-D, Q62P, Q63P, Q64P, Q64PN, Q63RP, Q64RP
CPU module	Generic term for C Controller module, QCPU, and Motion CPU
QCPU	Generic term for Basic model QCPU, High Performance model QCPU, Process CPU, and Universal model QCPU
Basic model QCPU	Generic term for Q00CPU and Q01CPU
High Performance model QCPU	Generic term for Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, and Q25HCPU
Process CPU	Generic term for Q02PHCPU, Q06PHCPU, Q12PHCPU, and Q25PHCPU
Universal model QCPU	Generic term for Q00UJCPU, Q00UCPU, Q01UCPU, Q02UCPU, Q03UDCPU, Q04UDHCPU, Q06UDHCPU, Q10UDHCPU, Q13UDHCPU, Q20UDHCPU, Q26UDHCPU, Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU, Q03UDVCPU, Q04UDVCPU, Q06UDVCPU, Q13UDVCPU, and Q26UDVCPU
Motion CPU	Generic term for Mitsubishi Motion Controller Q172DCPU, Q173DCPU, Q172DCPU-S1, Q173DCPU-S1, Q172DSCPU, and Q173DSCPU
I/O module	Generic term for MELSEC-Q series and AnS series I/O modules
Intelligent function module	Generic term for MELSEC-Q series and AnS series module which have functions other than input and output, such as an A/D or D/A converter module
Multiple CPU system	Control system where multiple CPU modules are mounted on the main base unit
Control CPU	CPU module that controls I/O modules and intelligent function modules mounted on the main base unit and extension base units

Controlled module	I/O module and intelligent function module controlled by a control CPU. For example, if a module that is mounted to slot No. 3 is controlled by programmable controller CPU No. 2, programmable controller CPU No. 2 is the control CPU of slot No. 3, and the module of slot No. 3 is the controlled module of programmable controller CPU No. 2.
Network module	Generic term for the CC-Link IE Controller Network module, MELSECNET/H module, CC-Link IE Field Network module and CC-Link module
CC-Link IE Controller Network module	Generic term for the CC-Link IE Controller Network module QJ71GP21-SX, QJ71GP21S-SX
MELSECNET/H module	Generic term for the MELSECNET/H network module QJ71LP21-25, QJ71LP21S-25, QJ71LP21G, QJ71LP21GE, QJ71BR11
CC-Link IE Field Network master/local module	Generic term for the CC-Link IE Field Network master/local module QJ71GF11-T2
CC-Link module	Generic term for the CC-Link system master/local module QJ61BT11N, QJ61BT11, and CC-Link/LT master module QJ61CL12
Ethernet board	Generic term for Ethernet cards for personal computer and Ethernet interface boards
GOT	Abbreviation for the Mitsubishi Graphic Operation Terminal
GX Configurator-QP	The product name of the software package for MELSEC programmable controllers
Gateway function communication	Abbreviation for communication with programmable controller CPU and third-party programmable controllers using the gateway functions of GOT

MEANINGS AND DEFINITIONS OF TERMS

The terms used in this manual have the following meanings and definitions.

Term	Description
Dedicated function library	Generic term for Bus interface function, MELSEC data link function, and C Controller module-dedicated function
Bus interface function	Dedicated function library offered by C Controller module This function is used when executing the following: • Input from or output to I/O modules controlled by the C Controller module • Access to the buffer memory of an intelligent function module • The readout or control of the C Controller module status
MELSEC data link function	Dedicated function library offered by C Controller module This function is used when writing to/reading from a device of other programmable Controller CPUs connected via network or configured with multiple CPUs.
C Controller module-dedicated function	Dedicated function library that controls C Controller module This function is used when reading the C Controller module status, controlling LED, and accessing to resources such as time and battery backup RAM.
SD memory card	The memory card that satisfies the SD Association standards

CHAPTER 1 OVERVIEW

Setting/monitoring tools for the C Controller module is the software package that is installed to a personal computer and connected to the C Controller module.
This chapter explains the overview of Setting/monitoring tools for the C Controller module.

1.1 Product Overview

Setting/monitoring tools for the C Controller module is the software package dedicated to parameter settings and monitoring of C Controller module.

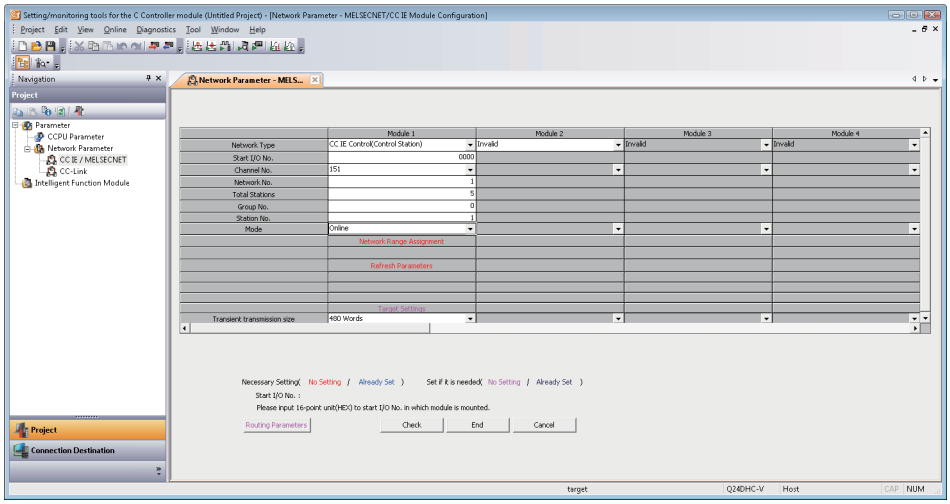
1.2 Features

This section explains the features of Setting/monitoring tools for the C Controller module.

(1) Simple setting of parameters

The parameters of C Controller module and following network modules controlled by C Controller module can simply be set on the GUI screen of Windows®.

- CC-Link module
- MELSECNET/H module
- CC-Link IE Controller Network module
- CC-Link IE Field Network master/local module



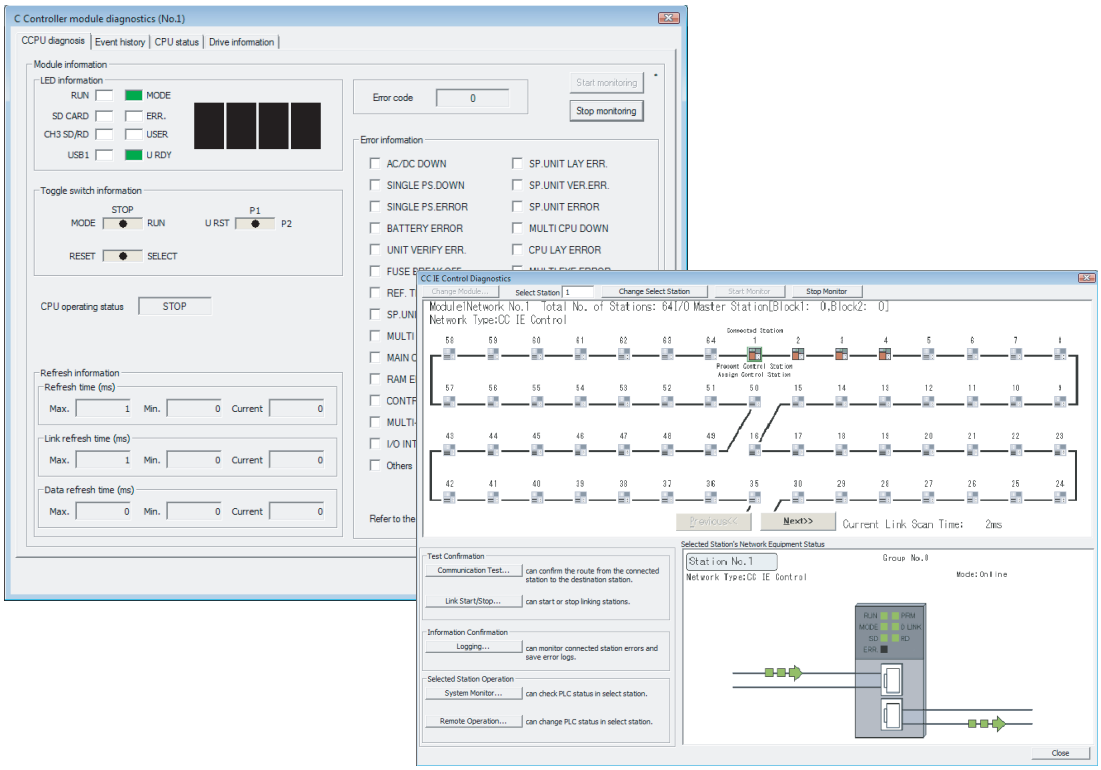
(2) Utilization of existing parameters

The parameter setting files saved in SW3PVC-CCPU can be read from SW4PVC-CCPU.
Utilizing existing parameters improves the development efficiency.

(3) Simple diagnose of C Controller system condition

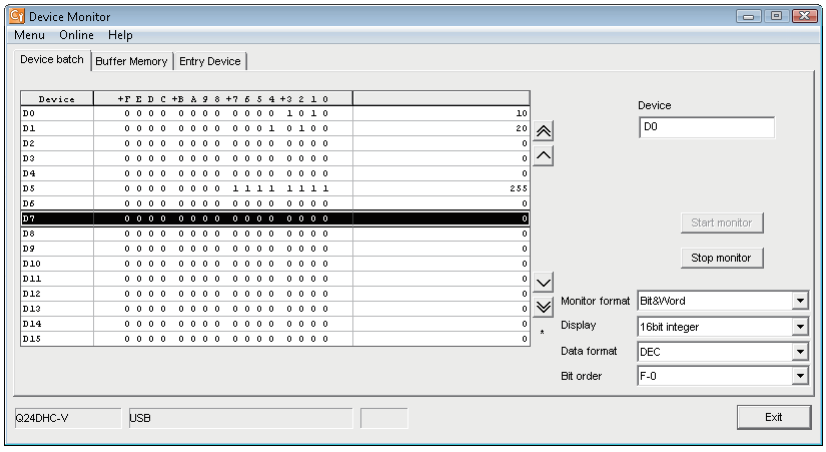
The condition of C Controller module and following network modules controlled by C Controller module can simply be diagnosed on the GUI screen of Windows®.

- CC-Link module
- MELSECNET/H module
- CC-Link IE Controller Network module
- CC-Link IE Field Network master/local module



(4) Simple monitoring of device/buffer memory

The device/buffer memory of access target (programmable controller CPU/C Controller module) can simply be monitored on the GUI screen of Windows®.



1.3 List of Functions

This section shows the list of functions of Setting/monitoring tools for the C Controller module.

○:Supported, ×:Not supported

Project			CPU module		Reference
			Q24 DHC-V	Q24 DHC-LS	
New		Create a new project.	○	○	Page 38, Section 4.2.1
Open		Open an existing project.	○	○	Page 39, Section 4.2.2
Close		Close the open project.	○	○	Page 46, Section 4.2.6
Save		Save the project.	○	○	Page 41, Section 4.2.3
Save As		Name and save the project.	○	○	
Compress/Unpack(M)			○	○	–
	Compress	Compress and save a project.	○	○	Page 43, Section 4.2.4
	Unpack	Decompress a compressed project.	○	○	
Delete		Delete an existing project.	○	○	Page 46, Section 4.2.5
Verify		Verify between two project data.	○	○	Page 47, Section 4.2.7
Change CPU Type		Change the CPU type.	○	○	Page 49, Section 4.2.8
Object			○	○	–
	New	Add data to the project.	○	○	Page 50, Section 4.3.1
	Rename	Rename the selected data.	○	○	Page 52, Section 4.3.3
	Delete	Delete the selected data.	○	○	Page 52, Section 4.3.4
	Copy	Copy the selected data.	○	○	Page 51, Section 4.3.2
	Paste	Paste the copied data.	○	○	
	Set as Default Connection	Specify data in selected connection destination as a connection destination for regular use.	○	○	Page 98, Section 6.1.3
	Property	Display the selected data properties.	○	○	Page 53, Section 4.3.5
Intelligent Function Module			○	○	Page 91, Section 5.3
	New Module	Add new intelligent function module.	○	○	Page 91, Section 5.3 (1)
	Delete Module	Delete intelligent function module.	○	○	
	Property	Set the properties of the intelligent function module.	○	○	
	Intelligent Function Module Parameter List	Display a list of set parameters of all the intelligent function modules.	○	○	
Open Another Format Data			○	○	–
	Open Parameter Setting File	Open parameter setting file created with SW3PVC-CCPU.	○	○	Page 54, Section 4.4
(Recently used files 1 to 4)		Display the recently used project paths and open the selected project.	○	○	–
Exit		Exit Setting/monitoring tools for the C Controller module.	○	○	Page 23, Section 3.1

○:Supported, ×:Not supported

Edit		CPU module		Reference
		Q24 DHC-V	Q24 DHC-LS	
Undo	Restore the previous processing status.	○		–
Redo	Restore the processing deleted with [Undo].			
Cut	Cut the selected data.			
Copy	Copy the selected data.			
Paste	Paste the cut or copied data at the cursor position.			

○:Supported, ×:Not supported

View			CPU module		Reference
			Q24 DHC-V	Q24 DHC-LS	
Toolbar			○		–
	Toolbar name	Display/hide each toolbar.			Page 25, Section 3.2.2
Statusbar		Display/hide the status bar.			Page 35, Section 3.2.6
Docking Window					–
	Navigation Window	Display/hide the Navigation window.			Page 34, Section 3.2.5
	Intelligent Function Module Monitor				–
		Intelligent Function Module Monitor 1 to 10	Display/hide the Intelligent Function Module Monitor window.		Page 91, Section 5.3

○:Supported, ×:Not supported

Online		CPU module		Reference
		Q24 DHC-V	Q24 DHC-LS	
Read from CCPU	Read data from the C Controller module/intelligent function module.	○	○	Page 106, Section 7.1 Page 108, Section 7.2
Write to CCPU	Write data to the C Controller module/intelligent function module.			
Verify with CCPU	Verify a project being edited against the data on the C Controller module/intelligent function module.			Page 111, Section 7.3 Page 112, Section 7.4
Delete CCPU Data	Delete data on the C Controller module.			Page 113, Section 7.5
Remote Operation	Remotely control RUN/PAUSE/STOP/RESET of the C Controller module from Setting/monitoring tools for the C Controller module.			Page 134, Section 9.1
Set Clock	Set the clock on the C Controller module.			Page 136, Section 9.2
Device Monitor	Start monitoring the device. (Monitoring for multiple devices can be started.)			Page 114, Section 8.1
Battery Backup RAM Monitor	Monitor the battery backup RAM.			Page 122, Section 8.3
Data Refresh Memory Monitor	Monitor the data refresh memory.			Page 125, Section 8.4
Watch				Page 127, Section 8.5
Start Watching	Start monitoring the intelligent function module.			
Stop Watching	Stop monitoring the intelligent function module.			
Login	Enter the user name and the password of account, and log in to the C Controller module.			Page 76, Section 5.1 (10)
Logout	Log out from the C Controller module.			–

○:Supported, ×:Not supported

Diagnostics		CPU module		Reference
		Q24 DHC-V	Q24 DHC-LS	
CCPU Diagnostics	Diagnose the operating status of the C Controller module.	○	○	Page 137, Section 10.1
Event History	Display/save the event history occurred on the C Controller module.			Page 139, Section 10.2
CPU Status	Check the operating status, switch status, and the error that is currently occurring of the C Controller module and CPU module.			Page 141, Section 10.3
Drive Information	Display the drive information of the C Controller module.	○	×	Page 142, Section 10.4
CC IE Control Diagnostics	Diagnose CC-Link IE Controller Network.	○	○	Page 143, Section 10.5
CC IE Field Diagnostics	Diagnose CC-Link IE Field Network.			Page 152, Section 10.6
MELSECNET Diagnostics	Diagnose MELSECNET/10(H).			Page 164, Section 10.7
CC-Link Diagnostics	Diagnose CC-Link and CC-Link/LT.			Page 179, Section 10.8
System Monitor	Monitor the system status of the C Controller module.			Page 190, Section 10.9

○:Supported, ×:Not supported

Tool			CPU module		Reference
			Q24 DHC-V	Q24 DHC-LS	
Options		Specify the display range of QD75 positioning data and set the operation settings of QD75 positioning module.	○	○	Page 91, Section 5.3
Intelligent Function Module Tool			○	○	–
	Analog Module	–	○	○	GX Works2 Operating Manual (Intelligent Function Module)*1
		Offset/Gain Setting	Configure the offset/gain setting of the analog module.	○	○	
		Q61LD Two-Point Calibration Setting	Perform the two-point calibration to use Q61LD as a measuring device.	○	○	
		Q61LD Default Setting	Batch-restore the Q61LD parameters to the factory default settings.	○	○	
	Temperature Input Module	–	○	○	
		Offset/Gain Setting	Configure the offset/gain setting of the temperature input module.	○	○	
	Temperature Control Module	–	○	○	
		Auto Tuning	Perform the automatic tuning of the temperature control module.	○	○	
	Counter Module	–	○	○	
		Preset	Perform the preset function of counter module.	○	○	
	QD75 Positioning Module	–	○	○	
		Positioning Monitor	Execute the positioning monitoring of QD75 positioning module.	○	○	
		Positioning Test	Perform the positioning test of QD75 positioning module.	○	○	
		Wave Trace	Perform the wave trace of QD75 positioning module.	○	○	
		Location Trace	Perform the location trace of QD75 positioning module.	○	○	
	Serial Communication Module	–	○	○	–
		Circuit Trace	Trace the communication data and communication control signals of the communication with the device controller.	○	○	–
Request of Parameter Initialization/Flush ROM Write Request		Initialize the buffer memory data and apply it to the flash ROM. Write the buffer memory data to the flash ROM.	○	○	Page 110, Section 7.2 (3)

*1 : The following functions are not supported by Setting/monitoring tools for the C Controller module.

- Wave output data creation of analog module
- Sensor correction function of temperature control module
- Predefined protocol support function of serial communication module

○:Supported, ×:Not supported

Window		CPU module		Reference
		Q24 DHC-V	Q24 DHC-LS	
Cascade	Cascade windows.	○		Page 27, Section 3.2.3
Tile Vertically	Tile windows vertically.			
Tile Horizontally	Tile windows horizontally.			
Arrange Icons	Arrange the icons at the bottom of the window.			
Close All	Close all open windows.			
(Switch to other window)	Display the open window.			
Window	Display the list of open windows. Also open or arrange specified windows.			

○:Supported, ×:Not supported

Help		CPU module		Reference
		Q24 DHC-V	Q24 DHC-LS	
Manual		○		–
(manual name)	Indicate Setting/Monitoring Tools for the C Controller Module Operating Manual and MELSEC-Q C Controller Module User's Manual.			Page 36, Section 3.3.1
Function Help		○	×	–
C Controller Module Function Help	Display the function help of Bus interface function, MELSEC data link function, and C Controller module-dedicated function.			Page 36, Section 3.3.2
Version Information	Check the version of Setting/monitoring tools for the C Controller module.	○		Page 36, Section 3.3.3

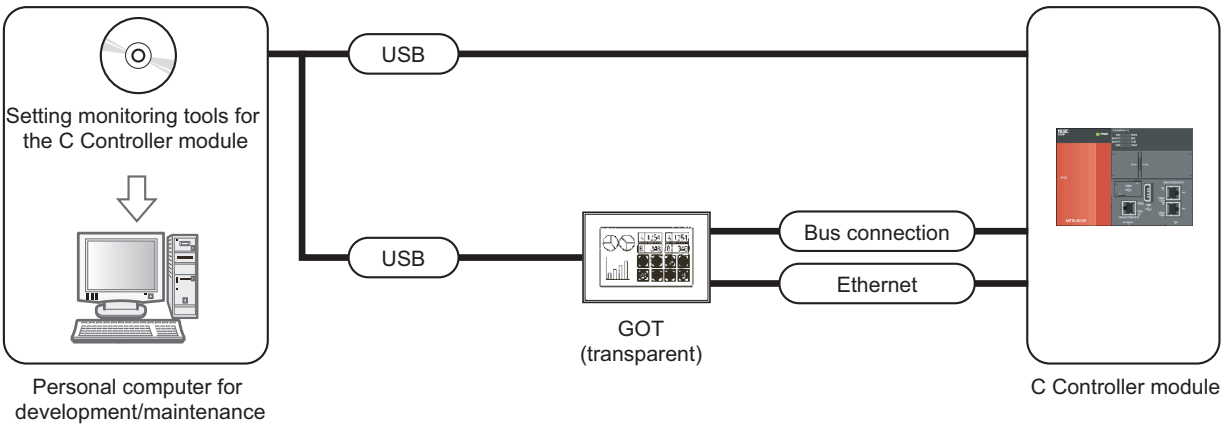
CHAPTER 2 SYSTEM CONFIGURATION

This chapter explains the system configurations using C Controller module.

2.1 Connection from USB Port

The following shows the possible system configuration for connecting to the C Controller module using the USB port of a personal computer.

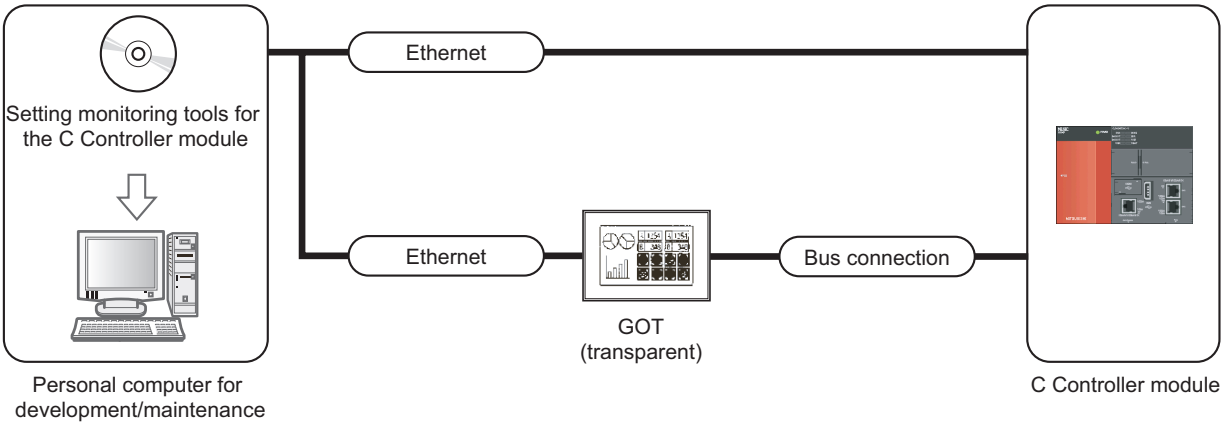
- USB direct connection
- GOT (bus connection) via transparent
- GOT (Ethernet) via transparent



2.2 Connection from Ethernet Port

The following shows the system configuration for connecting to the C Controller module using the Ethernet board that is built-in or installed on the personal computer.

- Ethernet direct connection
- GOT (bus connection) via transparent



2.3 Modules connectable from USB port, Ethernet board

(1) Modules connectable from USB port

The following table shows the modules that can be connected from the USB port.

Series	Module name	Module model
Q series	C Controller module	Q24DHCCPU-V, Q24DHCCPU-LS, Q12DCCPU-V*1
	Programmable controller CPU module	Universal model QCPU*1

*1 : Connectable to Q24DHCCPU-V and Q24DHCCPU-LS on another station via Universal model QCPU or Q12DCCPU-V in the multiple CPU system

(2) Modules connectable from Ethernet board

The following table shows the modules that can be connected from the Ethernet board.

I/F board model	Series	Module name	Module model
Ethernet board built-in a personal computer or commercially available	Q series	C Controller module	Q24DHCCPU-V*2, Q24DHCCPU-LS*2, Q12DCCPU-V*1
		Programmable controller CPU module*3	Built-in Ethernet port QCPU*1

*1 : Connectable to Q24DHCCPU-V and Q24DHCCPU-LS on another station via the Built-in Ethernet port QCPU or Q12DCCPU-V in the multiple CPU system

*2 : Connectable from S CH1 only (cannot be connected from CH1, CH2)

*3 : Not connectable when the remote password is set on the programmable controller CPU

CHAPTER 3 SCREEN CONFIGURATION AND BASIC OPERATIONS

This chapter explains the screen configuration and basic operations of Setting/monitoring tools for the C Controller module.

3.1 Starting and Exiting

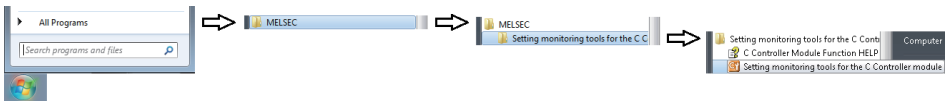
This section explains how to start/exit Setting/monitoring tools for the C Controller module.

(1) Starting Setting/monitoring tools for the C Controller module

Start Setting/monitoring tools for the C Controller module.

Operating procedure

- **Select [Start] ⇒ [All Programs] ⇒ [MELSEC] ⇒ [Setting monitoring tools for the C Controller module Ver.4] ⇒ [Setting/monitoring tools for the C Controller module].**


All Programs
Search programs and files
MELSEC
MELSEC
Setting monitoring tools for the C C
Setting monitoring tools for the C Conti
C Controller Module Function HELP
Setting monitoring tools for the C Controller module
Computer

Point

- When Setting/monitoring tools for the C Controller module cannot be executed, check the 'mode' of Windows® Data Execution Prevention function (DEP) (Windows® security function).
  When the 'mode' is "AlwaysOn", set another mode and restart the operating system.
  For details of Data Execution Prevention function (DEP) and mode check/change, refer to Microsoft® support page.
- Setting/monitoring tools for the C Controller module can be executed by double-clicking a file (extension ".CP4" and ".CSC") created in Setting/monitoring tools for the C Controller module.
- Exiting Windows®
  Windows® cannot be exited when Setting/monitoring tools for the C Controller module is running.
  Exit Windows® after exiting Setting/monitoring tools for the C Controller module.

(2) Exiting Setting/monitoring tools for the C Controller module

Exit Setting/monitoring tools for the C Controller module.

Operating procedure

- **Select [Project] ⇒ [Exit].**

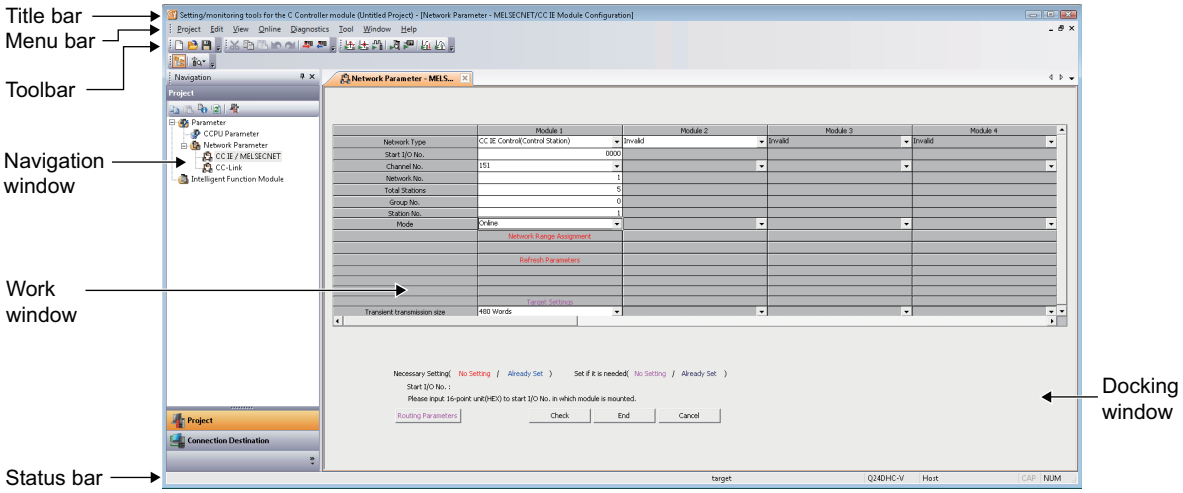
3.2 Screen Configuration and Basic Operations

This section explains the main frame (basic screen) of Setting/monitoring tools for the C Controller module that is displayed when it is started.

3.2.1 Main frame configuration

The following screen shows a main frame configuration on which a work window and docked windows are displayed.

Screen display



Display contents

Name	Description	Reference
Title bar	Display a project name.	–
Menu bar	Display menu options for executing each function.	–
Toolbar	Display tool buttons for executing each function.	Page 25, Section 3.2.2
Work window	A main screen used for operations such as parameter setting, and monitoring.	Page 27, Section 3.2.3
Docking window	A sub screen to support operations performed on a work window.	Page 32, Section 3.2.4
Navigation window	Display contents of a project in tree format.	Page 34, Section 3.2.5
Status bar	Display information about a project being edited.	Page 35, Section 3.2.6

Point

- Focus point indication in Windows Vista® or Windows® 7
  When using Windows Vista® or Windows® 7, the focus point may not be indicated on the screen.
  To display the focus point, set the following setting.

  ① For Windows Vista®, select [Start] ⇒ [Control Panel] ⇒ [Ease of Access] ⇒ [Ease of Access Center].
  For Windows® 7, select [Start] ⇒ [Control Panel] ⇒ [Ease of Access Center].
  ② Select "Make the keyboard easier to use".
  ③ Select "Underline keyboard shortcuts and access keys".

3.2.2 Toolbars

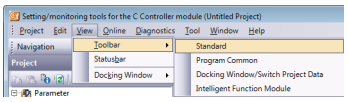
A toolbar is a block of on-screen buttons for executing frequently-used functions included in a menu.
(☞ Page 202, Appendix 1)
The toolbars to be displayed and their display positions on the screen can be set by the user.

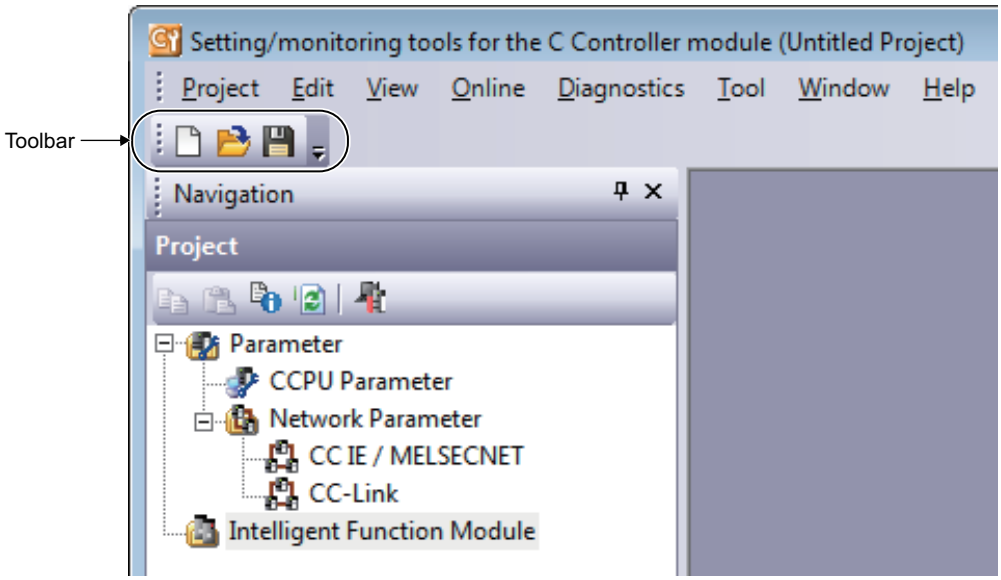
(1) Displaying/hiding toolbars

Select a toolbar to be displayed.

Operating procedure

- **Select [View] ⇒ [Toolbar] ⇒ [(toolbar name)].**
  The selected toolbar is displayed on the screen.



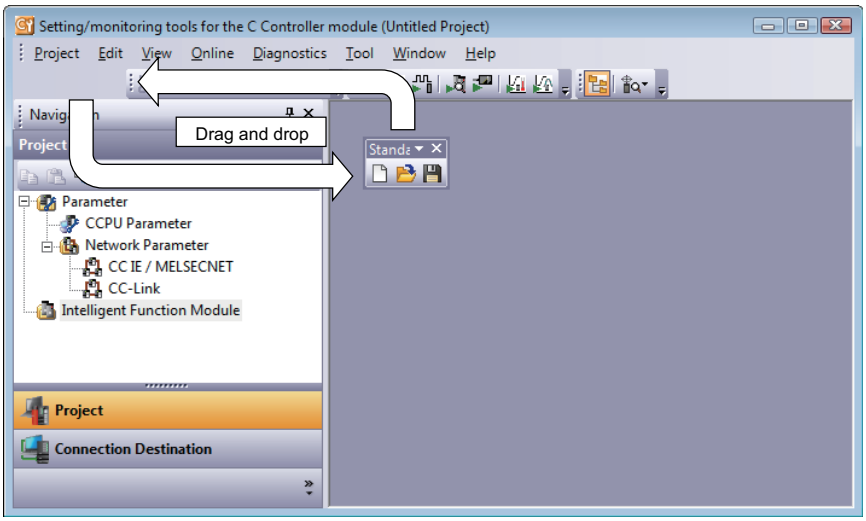


(2) Docking/floating toolbars

Switch the display format (docked/floating) of a toolbar.

Operation

- **Drag a docked toolbar to the desired position for floating display.**
- **Drag the title bar of a floating toolbar and drop it in the main frame.**



Point

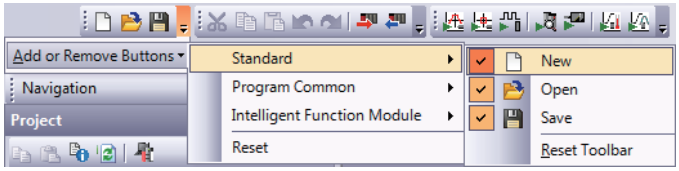
- Method for docking a toolbar at the original position
  To dock a floating toolbar back at the original position, double-click on the title bar of the toolbar.

(3) Customizing toolbars

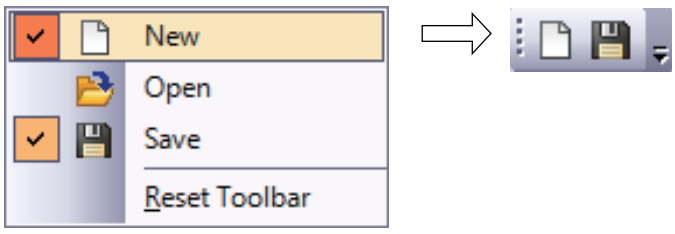
Set the types of tool buttons to be displayed on each toolbar.

Operating procedure

1. **Select the Toolbar options button (▾) ⇒ [Add or Remove Buttons].**
   A list of tool buttons is displayed.



2. **Select the checkbox in front of the tool button to be displayed on the screen.**
   The selected tool buttons are displayed on the screen.

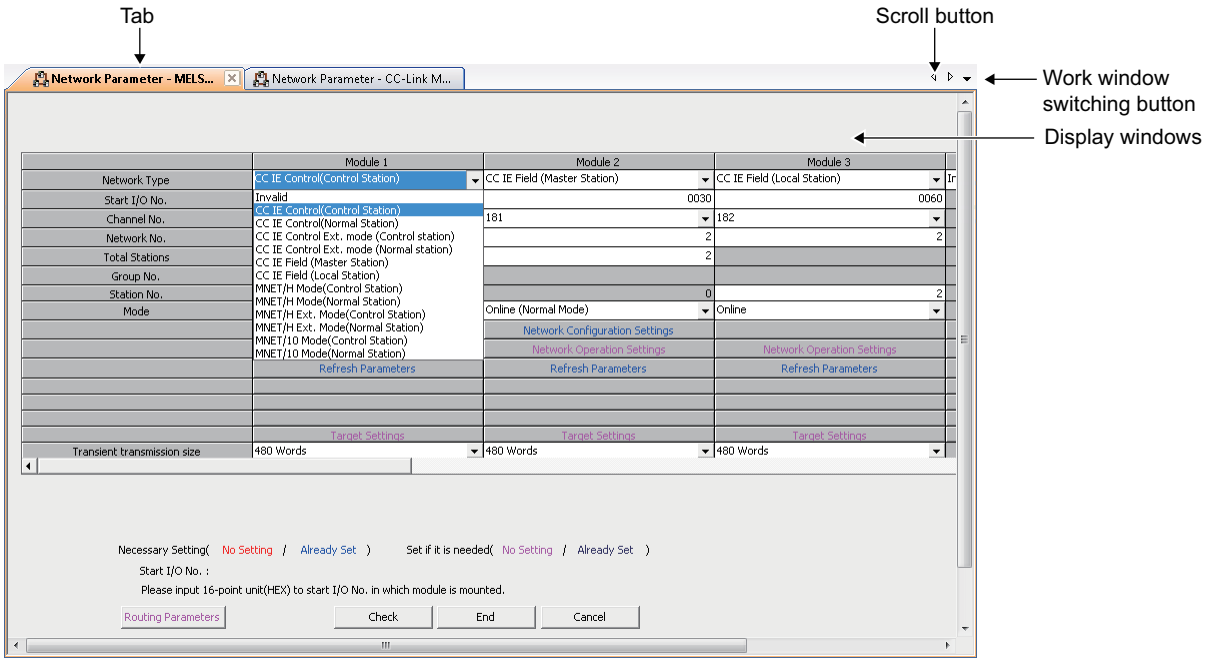


The toolbar configuration returns to the default when [Reset Toolbar] is selected.

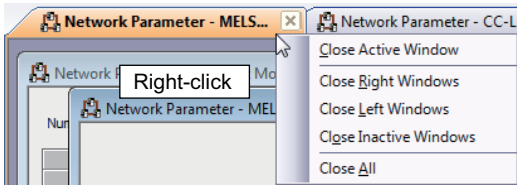
3.2.3 Work windows

A work window is a main screen used for operations such as programming, parameter setting, and monitoring in Setting/monitoring tools for the C Controller module.

Screen display



Display contents

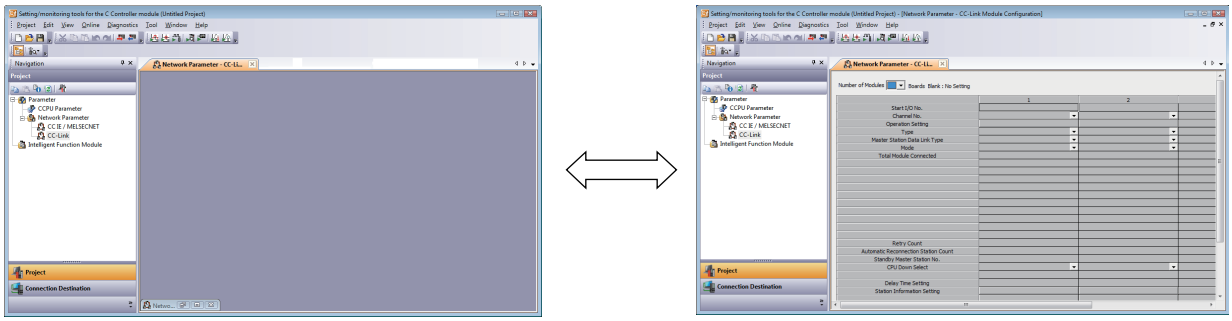
Item	Description
Tab	Become active when selected. The tab order can be changed by dragging and dropping tabs. The window(s) can be closed from the menu displayed by right-clicking the tab. In the other way, the active window can be closed by clicking ✕ on the tab. 
Tool hint	Display a brief explanation when the cursor is placed on the selected tab.
Scroll button	Scroll the tab display to the left and right. Display hidden tabs.
Work window switching button	Display the list of windows being displayed. Select a data name displayed on the list to display its corresponding window on the top.
Display windows	Display screens such as parameter setting screen and monitoring screen.

(1) Maximizing/minimizing screens

Maximize/minimize the screen size on the work window.

Operation

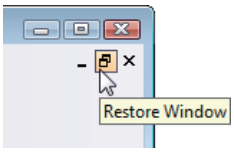
- **Click the Maximize button ( ).**
- **Click the Minimize button ( ).**



Point

- Restoring the screen size

  Click to return the maximized/minimized screen to its previous size.



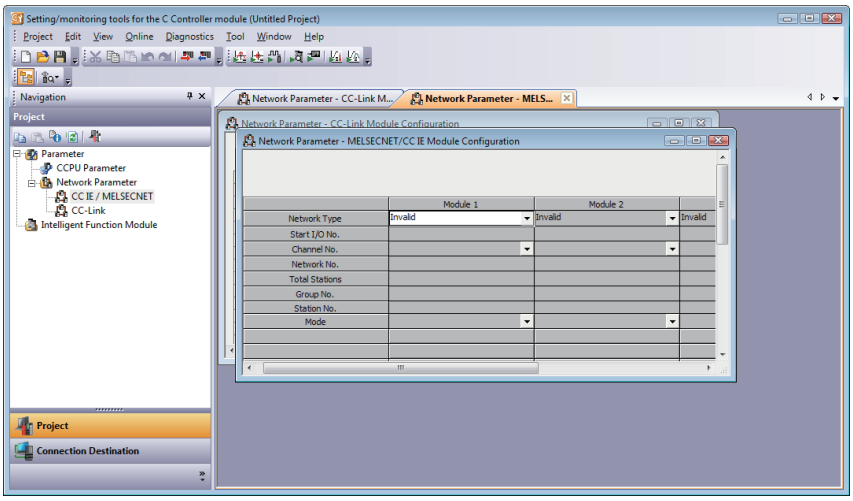
(2) Arranging screens

Arrange screens to display on the work window.

(a) Cascading screens

Operation

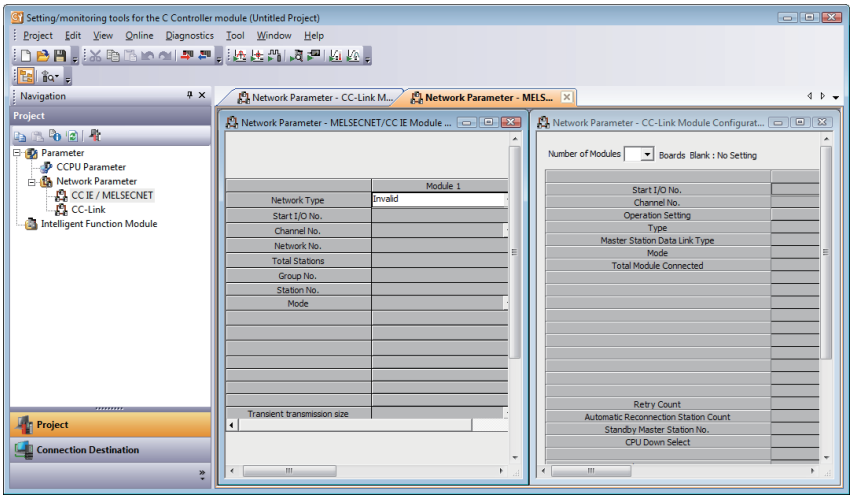
- **Select [Window] ⇒ [Cascade].**



(b) Tiling screens vertically

Operation

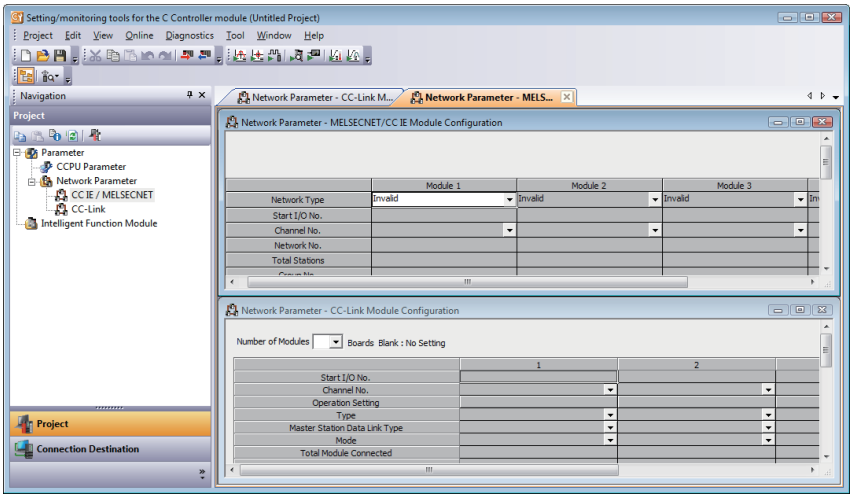
- **Select [Window] ⇒ [Tile Vertically].**



(c) Tiling screens horizontally

Operation

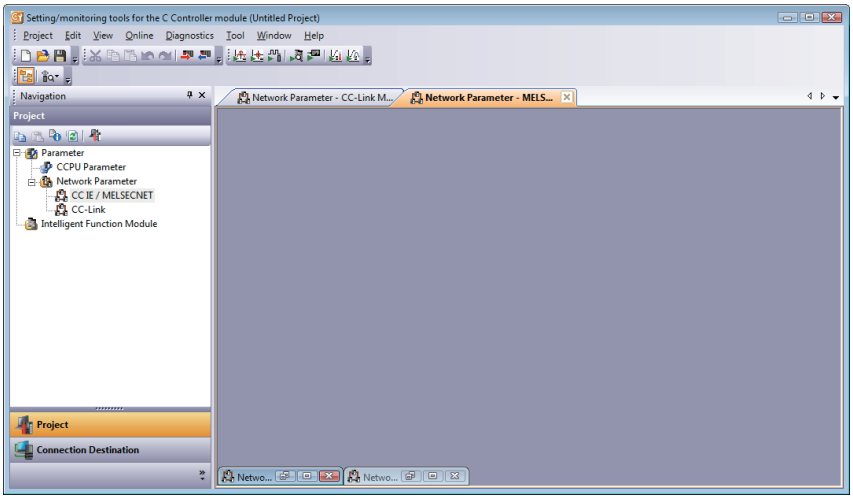
- **Select [Window] ⇒ [Tile Horizontally].**



(d) Arranging icons (minimized windows) at the bottom of the work window

Operation

- **Select [Window] ⇒ [Arrange Icons].**

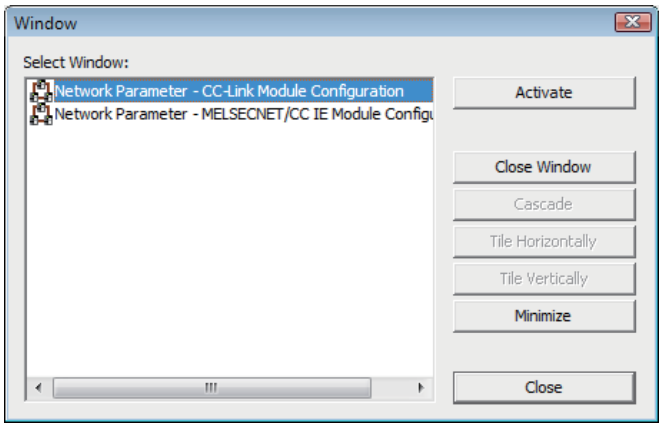


(3) Arranging/displaying windows

Display a list of open windows, and also open and arrange specified windows.
This function is useful to display the desired window efficiently when multiple windows are open.

Screen display

- **Select [Window] ⇒ [Window].**



3.2.4 Docking windows

This section explains the operations common to docking windows.

(1) Displaying/Hiding dockable windows

Display/hide a dockable window.

Operating procedure

- **Select [View] ⇒ [Docking Window] ⇒ [(target item)].**

(2) Docking/floating dockable windows

Switch the display format of a dockable window.

(a) Docked display

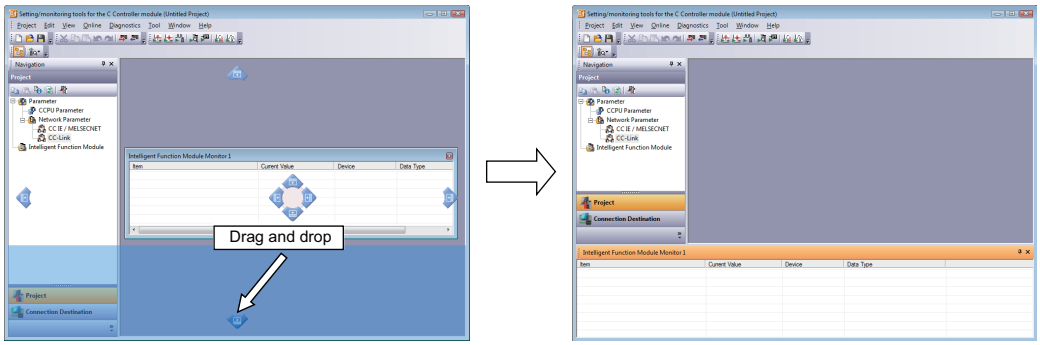
Display a dockable window docked to the main frame.

(b) Floating display

Display a dockable window floating from the main frame.

Operation

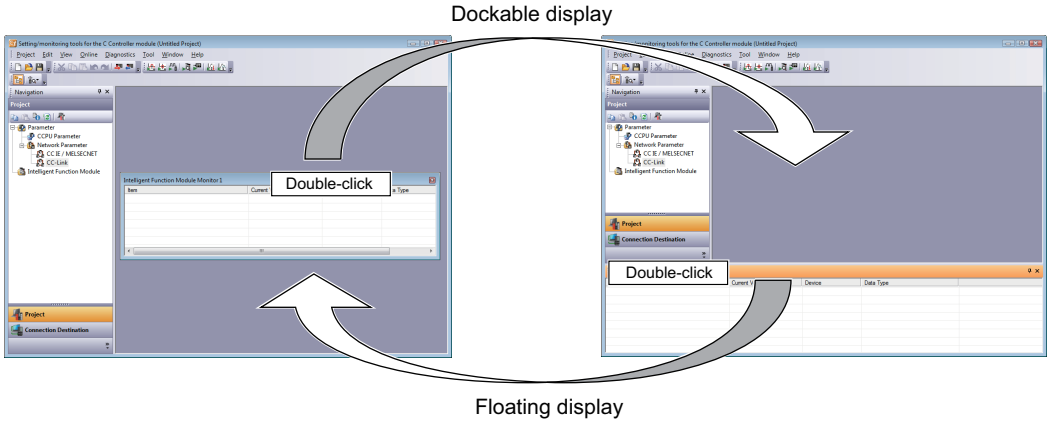
- **Drag the title bar of a floating dockable window and drop it to the guidance in the main frame.**



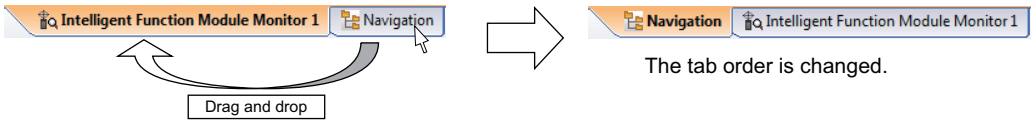
The docked window is floated by dragging the title bar to the desired position.

Point

- Operation of dockable windows
  Docked windows can be switched from docked to floating or vice versa by double-clicking the title bar.



- Changing the tab order
  The tab order can be changed by dragging and dropping the desired tab to the left or right when multiple dockable windows are docked.



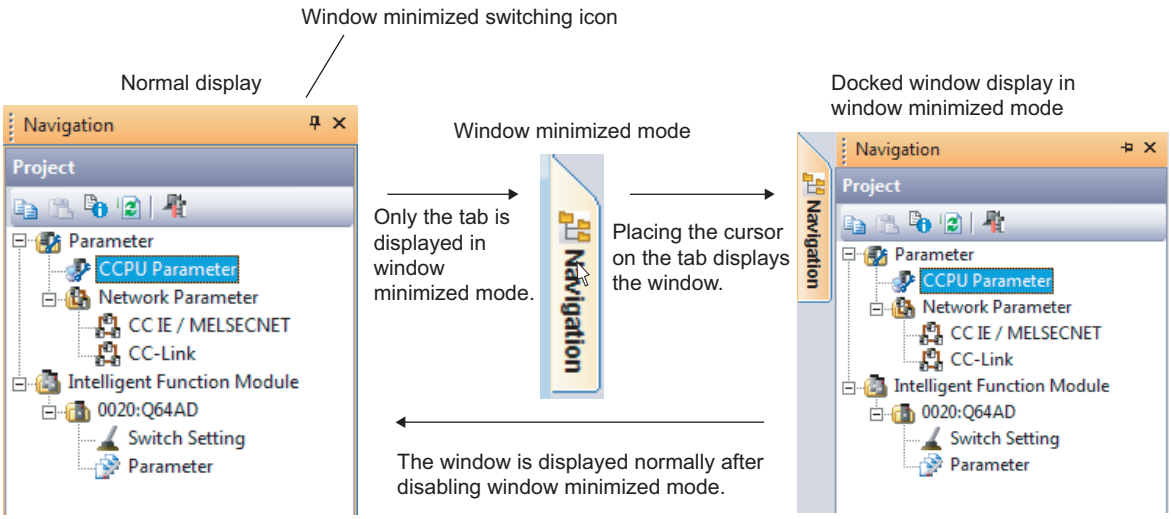
(3) Window minimized mode

Minimize a docked window as a tab.

The window minimized mode can be set and disabled by the following procedure.

Operating procedure

- **Click the window minimized mode switching icon (/).**

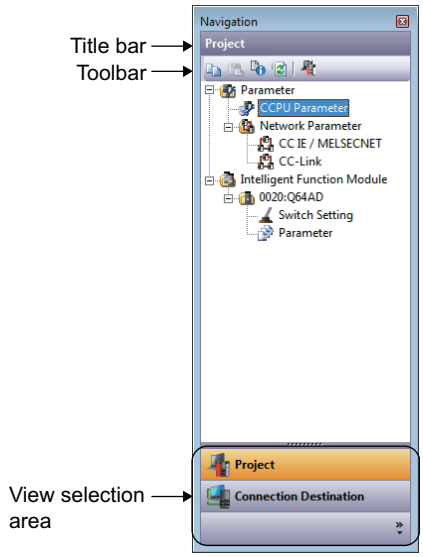


3.2.5 Navigation window

This section explains the Navigation window that displays the contents of a project in tree format.
Operations such as displaying the parameter setting screen can be performed on the Navigation window.
(☞ Page 37, CHAPTER 4)

Screen display

- **Select [View] ⇒ [Docking Window] ⇒ [Navigation Window].**

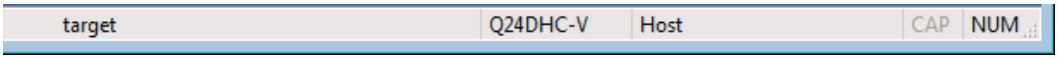


Display contents

Name		Description	Reference
Title bar		Display a title of a view being displayed.	–
Toolbar		Display tool buttons of functions to be executed on each view.	Page 202, Appendix 1
View selection area		Area for selecting a view to display.	–
	Project	Display the Project view.	Page 38, Section 4.2.1 (1)
	Connection Destination	Display the Connection Destination view.	Page 95, Section 6.1.1

3.2.6 Status bar

The status bar displays information about the current project at the bottom of the screen.



Security information	CPU type	Connection destination	Caps Lock	Num Lock

The following shows the information to be displayed.

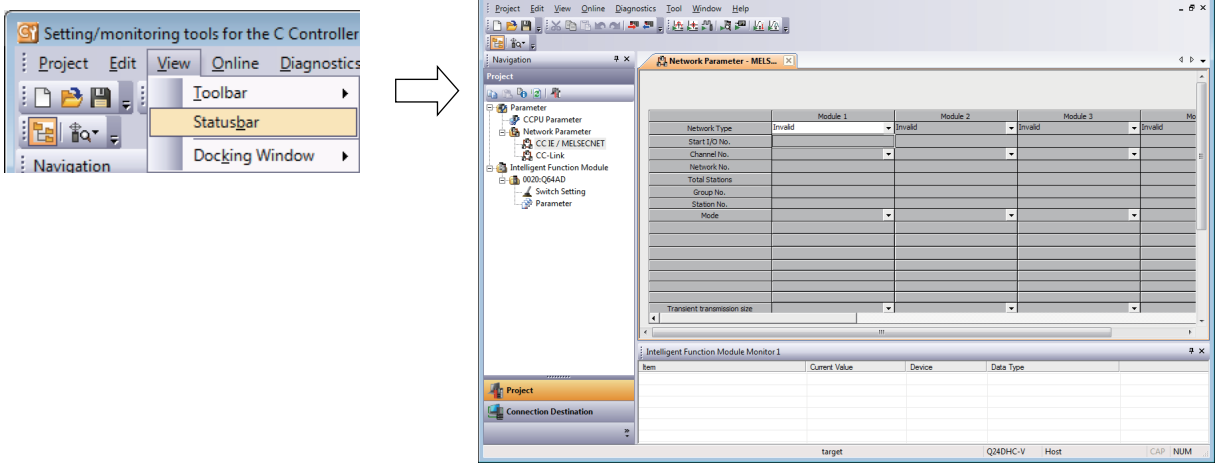
Item	Description
Security information	Display the current login user name of C Controller module.
CPU type	Display the CPU type of the project.
Connection destination	Display the set content of the "Transfer Setup" screen.
Caps Lock	Display the effective status of the Caps Lock.
Num Lock	Display the effective status of the Num Lock.

(1) Displaying/hiding status bar

Display/hide the status bar.

Operating procedure

- **Select [View] ⇒ [Statusbar].**
  A check mark is appended in front of the menu option and the status bar is displayed on the screen.



3.3 Help Function

This function displays such as method for using Bus interface function, MELSEC data link function, and C Controller module-dedicated function.

3.3.1 Displaying manuals

Display Setting/Monitoring Tools for the C Controller Module Operating Manual, MELSEC-Q C Controller Module User's Manual.

Screen display

- **Select [Help] ⇒ [Manual] ⇒ [(manual name)].**

3.3.2 Displaying function help

Display the detailed description of Bus interface function, MELSEC data link function, and C Controller module-dedicated function.

Screen display

- **Select [Help] ⇒ [Function help] ⇒ [C Controller module function help].**

3.3.3 Checking version of Setting/monitoring tools for the C Controller module

Display information such as the software version of Setting/monitoring tools for the C Controller module.

Screen display

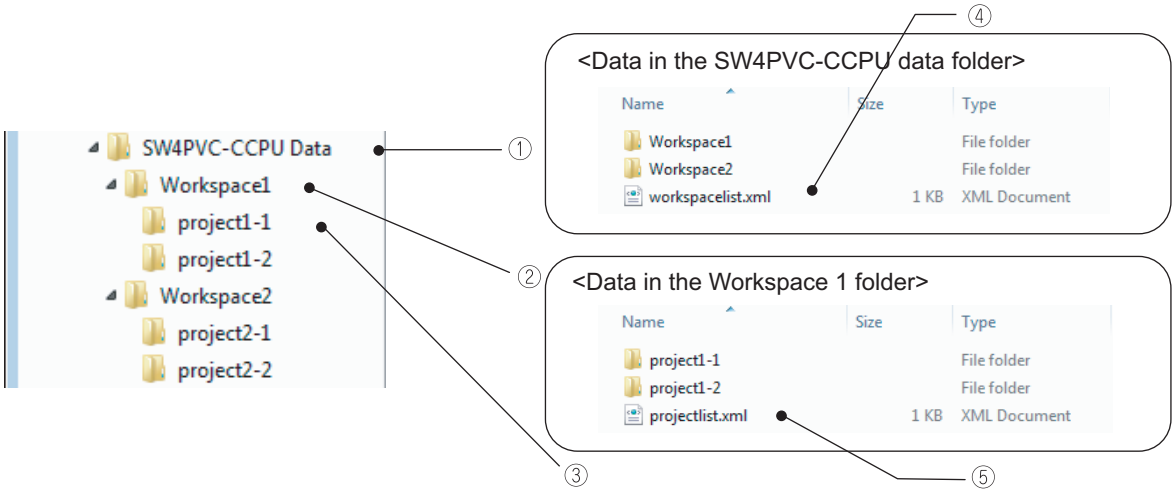
- **Select [Help] ⇒ [Version information].**

CHAPTER 4 PROJECT MANAGEMENT

This chapter explains basic operations and management of projects.

4.1 Configuration of Workspace/Project of Setting/ Monitoring Tools for the C Controller Module

The following explains the configuration of workspace/project of Setting/monitoring tools for the C Controller module.



① Save destination folder · · · A folder specified for the save folder path when the project is saved.
② Workspace name folder · · · A folder corresponds to the workspace name specified when the project is saved.
③ Project name folder · · · A folder corresponds to the project name specified when the project is saved.
④ workspacelist.xml · · · A file created automatically when the project is saved.
⑤ projectlist.xml · · · A file created automatically when the project is saved.

4.2 Basic Operations of Project

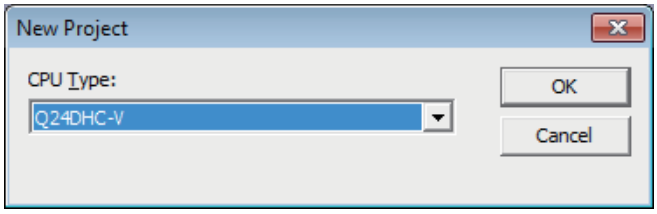
This section explains basic operations of Setting/monitoring tools for the C Controller module such as creating, opening, and saving projects.

4.2.1 Creating projects

Create a new project.

Screen display

- **Select [Project] ⇒ [New].**



Operating procedure

- **Set the items on the screen.**

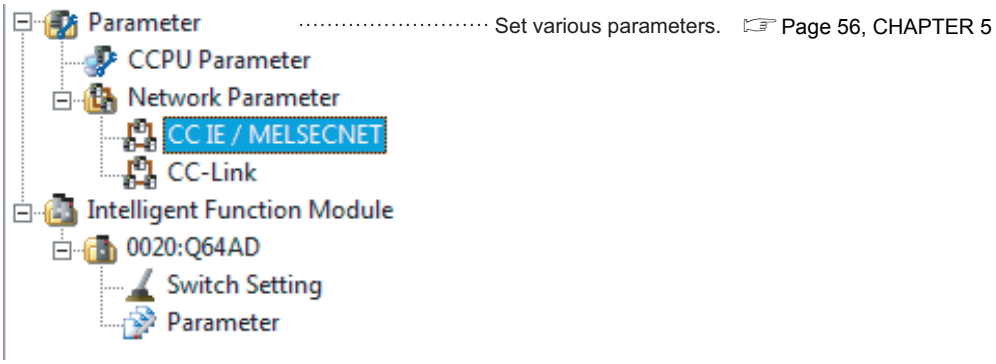
Item	Description
CPU Type	Select the CPU type used for the project.

Point

- Creating new projects with parameters read from CCPU
  A new project can be created with parameters read from a C Controller module when the Read from CCPU function is executed without creating a new project. (☞ Page 106, Section 7.1)
- Creating new projects
  Do not change the storage location and names of folders/files of a created workspace/project using the application such as Windows® Explorer.

(1) Project view

Project contents displayed on the Project view in tree format are as shown below.

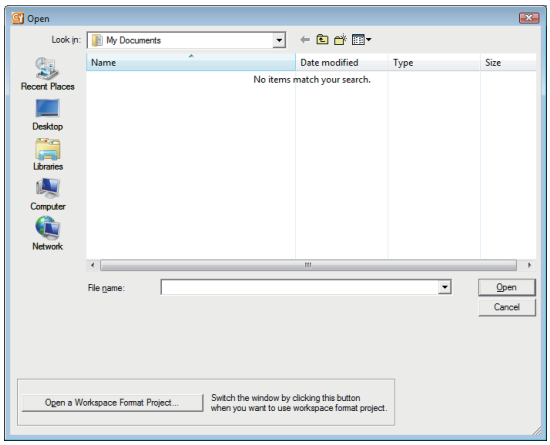


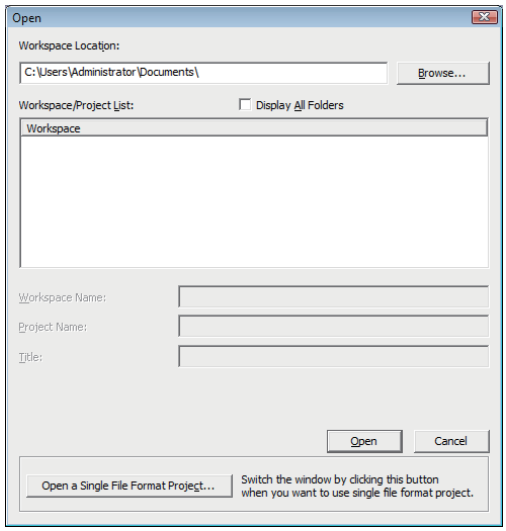
4.2.2 Opening existing projects

Read a project saved on a personal computer or another data storage device.

Screen display

- **Select [Project] ⇒ [Open].**





Operating procedure

1. **Set the items on the screen.**

Item	Description
Save Folder Path	Enter the folder (drive/path) where the workspace is saved. The folder can be selected in the "Browse For Folder" screen by clicking the Browse... button.
Workspace/Project List	Select the workspace or project. The display is switched to the project list by double-clicking "Workspace".
Display all folders	Select this to display workspace folders and project folders copied/moved by the application such as Windows® Explorer.
Workspace Name	Display the selected workspace name.
Project Name	Display the selected project name.
Title	Display the title of the selected project.

2. **Click the Open button.**
The specified project is displayed.

Screen button

- Browse...
  Displays the "Browse For Folder" screen
- Open a Single File Format Project...
  Switches to the Open screen in the single file format.
- Open a Workspace Format Project...
  Switches to the Open screen in the workspace format.

Point

- Open screen
  The Open screen with the initial setting opens a project in the single file format.
  - If the file save destination path is long, the "Look in" field may be left blank when opening a project in the single file format. Even with the blank field, the selected folder/file can be opened normally.

  Switch the screen by clicking the Open a Workspace Format Project... button to open the existing project in the workspace format.
- Single file format
  Single file format is a format to handle project files as a single file. By saving projects in the single file format, projects are managed without being aware of the folder configuration and the file configuration, and operations such as: changing project names, copying and pasting projects, and sending and receiving data, can easily be performed.
- Workspace
  A workspace is a special folder of Setting/monitoring tools for the C Controller module dedicated to managing multiple projects under the same name.
  Do not change the workspace configuration using the application such as Windows® Explorer.
- Opening projects being edited by other users
  The project being edited can be opened by other users as a read-only project. Note that the following function cannot be used.
  - Saving projects

4.2.3 Saving projects

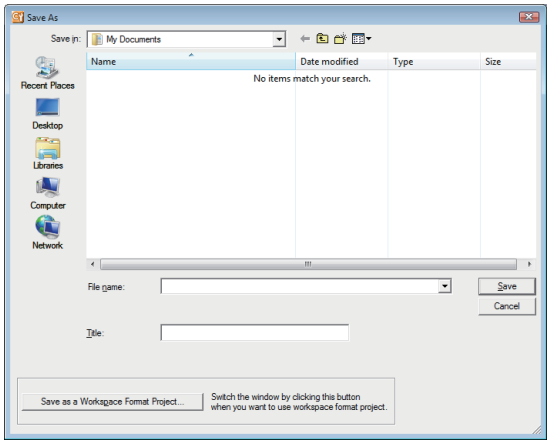
Save a project on a personal computer or another data storage device.

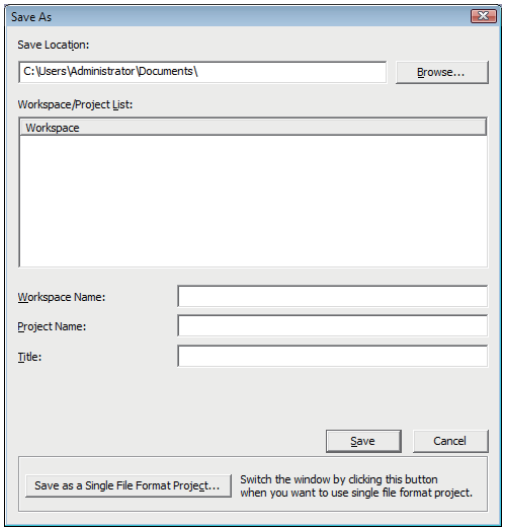
(1) Saving projects under the specified name

Save the open project under the specified name.

Screen display

- **Select [Project] ⇒ [Save As].**





Operating procedure

1. **Set the items on the screen.**

Item	Description
Save Folder Path	Enter the folder (drive/path) where the workspace is saved. The folder can be selected in the "Browse For Folder" screen by clicking the Browse... button.
Workspace/Project List	Select the workspace or project. The display is switched to the project list by double-clicking "Workspace".
Workspace Name	Enter the workspace name.
Project Name	Enter the project name.
Title	Enter the title of the project.

2. **Click the Save button.**

The project is saved in the specified folder under the specified workspace name, project name, and title.

Screen button

- Browse...
  Displays the "Browse For Folder" screen
- Save as a Single File Format Project...
  Switches to the Save as screen in the single file format.
- Save as a Workspace Format Project...
  Switches to the Save as screen in the workspace format.

Point

- Save As screen
  The Save As screen with the initial setting saves a project in the single file format.
  - If the file save destination path is long, the "Save in" field may be left blank when saving a project in the single file format. Even with the blank field, the selected folder/file can be saved normally.

  Switch the screen by clicking the Save as a Workspace Format Project... button to save the project in the workspace format.
- Single file format
  Single file format is a format to handle project files as a single file. By saving projects in the single file format, projects are managed without being aware of the folder configuration and the file configuration, and operations such as: changing project names, copying and pasting projects, and sending and receiving data, can easily be performed.
- Workspace
  A workspace is a special folder of Setting/monitoring tools for the C Controller module dedicated to managing multiple projects under the same name.

  Do not change the workspace configuration using the application such as Windows® Explorer.
- Saving projects in an existing destination
  When saving the project in an existing destination (workspace or project), the destination folder can be selected from the "Workspace/Project List".
- Number of characters used for workspace name, project name, and title
  The total number of characters used for the workspace folder path, workspace name, and project name should not exceed 200 characters.
  A title can be entered within 128 characters.

(2) Saving projects

Overwrite and save the project being edited.

Operating procedure

- **Select [Project] ⇒ [Save].**

  The data to be saved is overwritten on the existing project data.

4.2.4 Saving projects with compression/decompressing projects

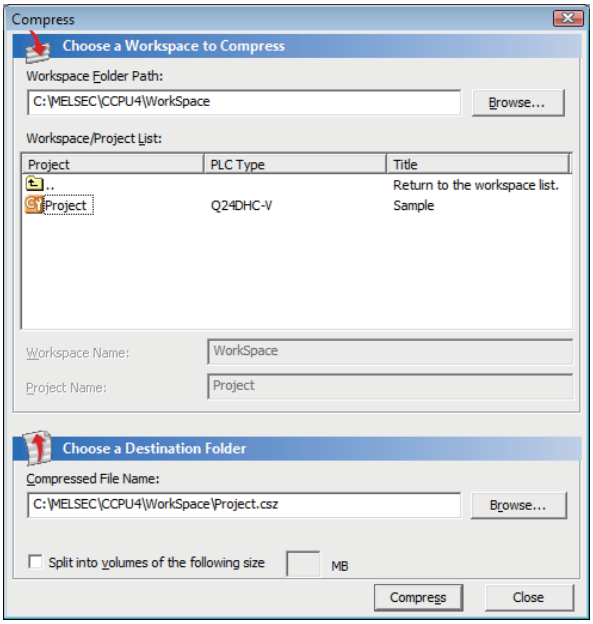
Save projects with compression, and decompress projects saved with compression.
These functions produce easier project data passing.
These functions are not compatible with commercially available file compression and decompression tools.

(1) Saving projects with compression

Save a desired project with compression.

Screen display

- **Select [Project] ⇒ [Compress/Unpack] ⇒ [Compress].**



Operating procedure

1. **Set the items on the screen.**

Item		Description
Project to be Compressed		
	Workspace Folder Path	Enter the folder (drive/path) where the workspace is saved. The folder can be selected in the "Browse For Folder" screen by clicking the Browse... button.
	Workspace/Project List	Select the workspace and project.
	Workspace Name	Display the selected workspace name.
	Project Name	Display the selected project name.
Compress Destination Setting		
	Compressed File Name	Enter the folder where the compressed file is saved, and the compressed file name. The compressed file name can be specified in the "Compressed File Name" screen by clicking the Browse... button.
	File is divided	Select this to save data in multiple compressed files. Specify the split size in the range from 1 to 999MB.

2. **Click the** Compress **button.**

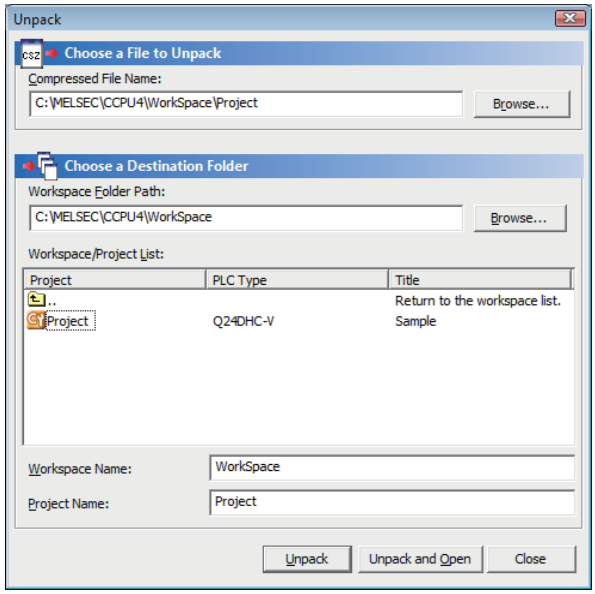
The compressed project file (*.csz) is saved in the specified folder.

(2) Decompressing projects saved with compression

Decompress a project saved with compression.

Screen display

- **Select [Project] ⇒ [Compress/Unpack] ⇒ [Unpack].**



Operating procedure

1. **Set the items on the screen.**

Item		Description
Unpack Source Setting		
	Compressed File Name	Enter the folder (drive/path) in which the compressed file to be decompressed is saved, and the compressed file name. The compressed file name can be specified in the "Compressed File Name" screen by clicking the Browse... button.
Unpack Destination Project		
	Workspace Folder Path	Enter the folder (drive/path) to which the project to be decompressed is saved. The folder can be selected in the "Browse For Folder" screen by clicking the Browse... button.
	Workspace/Project List	Select the workspace and project.
	Workspace Name	Enter the name of the workspace to which the decompressed project is saved.
	Project Name	Enter the name of the project to which the decompressed project is saved.

2. **Click the** Unpack **button.**

The compressed project file is decompressed and saved in the specified folder.

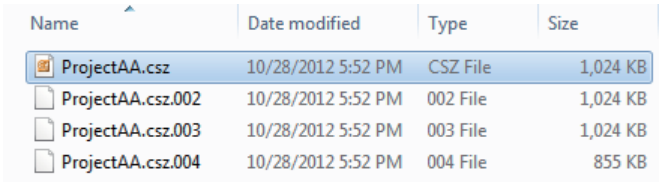
Screen button

- Unpack and Open

  Decompresses a compressed project file and opens the project.

Point

- Decompressing compressed files
  A compressed file can also be decompressed on the "Unpack" screen which is displayed by double-clicking the compressed file (*.csz) on Windows® Explorer.
- Names of divided compressed files
  When a project is saved in divided compressed files, a number is automatically added after the extension in each name of the second or later compressed files as follows.



· · · · · · Name of the first file
· · · · · · Name of the second file
· · · · · · Name of the third file
· · · · · · Name of the fourth file

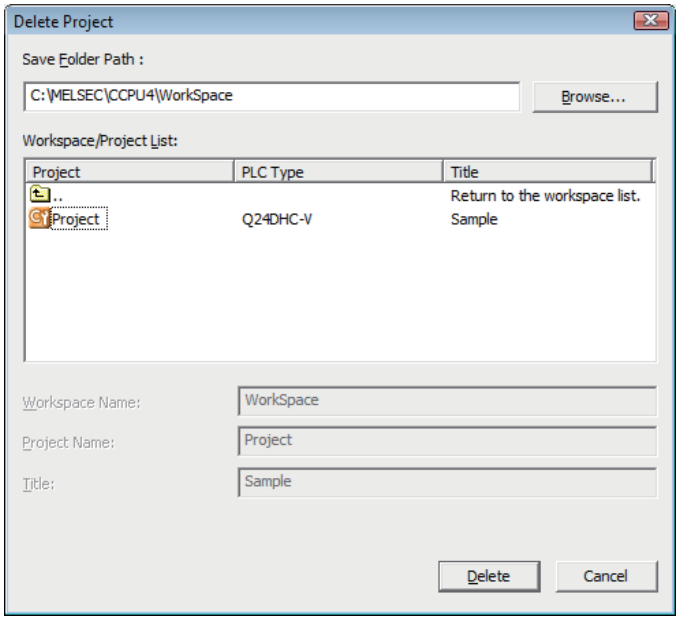
- Decompressing divided compressed files
  Select the first file (*.csz) when decompressing a series of divided compressed files. To be decompressed, all of a series of divided files must be in the same folder.

4.2.5 Deleting projects

Delete a project saved on a personal computer or another data storage device.

Screen display

- **Select [Project] ⇒ [Delete].**



Operating procedure

1. **Select the project to be deleted.**
2. **Click the** Delete **button.**
   The selected project is deleted.

Point

- Deleting projects
  - Once a project is deleted, it cannot be restored again.
  - The open project cannot be deleted. Delete the project after closing it.

4.2.6 Closing projects

Close an open project.

Operating procedure

- **Select [Project] ⇒ [Close].**

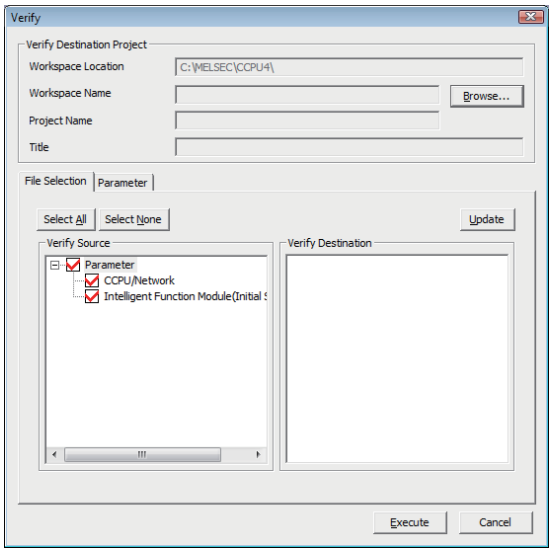
4.2.7 Verifying project data

Verify data of an open project against data of another project.
This function is used to compare the content of two projects or to locate program changes made in projects.
To verify data against parameters on the C Controller module, use the Verify with CCPU function.
(☞ Page 111, Section 7.3)

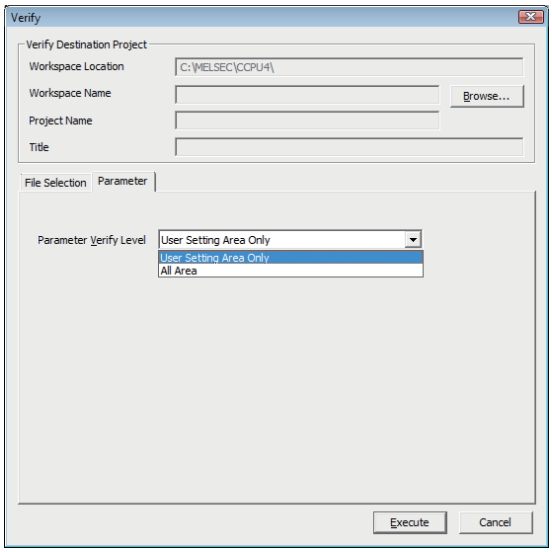
Screen display

- **Select [Project] ⇒ [Verify].**

<<File Selection>> tab



<<Parameter>> tab



Operating procedure

1. **Click the Browse... button to set the verify destination project.**

Item		Description
Verify Destination Project	Workspace Folder Path	Display the path to the workspace of the verify destination.
	Workspace Name	Display the workspace name of the verify destination.
	Project Name	Display the project name of the verify destination.
	Title	Display the project title of the verify destination.

2. **Select the verification target file on the <<File Selection>> tab.**

Item		Description
Parameter	CCPU/Network	Select the verification target parameter.
	Intelligent Function Module (Initial Setting)	

3. **Select the parameter verification level on the <<Parameter>> tab.**

The following table shows the verification details for each setting item.

Item	Description
User Setting Area Only	Verify only the parameter area set by the user.
All Area	Verify all the area including the parameter area set by the system.

4. **Click the** Execute **button.**

The verification result is displayed on the "Verify Result" screen.

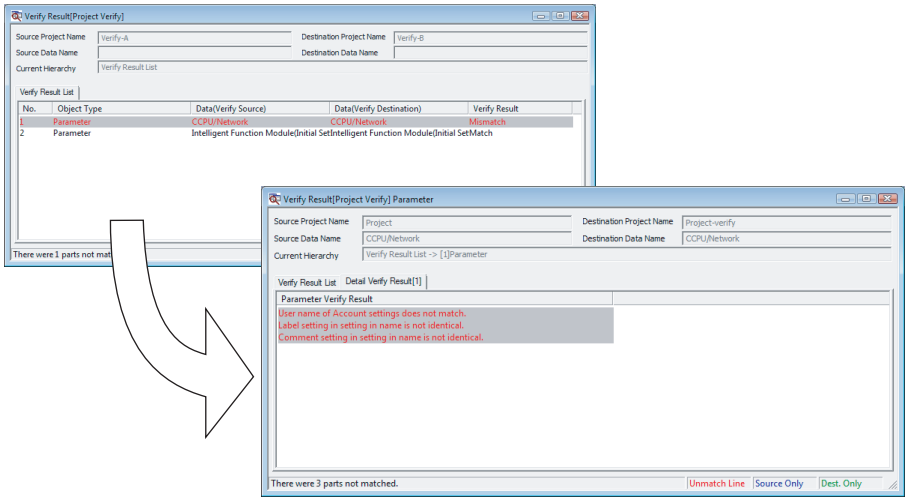
(☞ Page 48, (1) in this section)

(1) Checking verification result details

Details of mismatched data can be checked in the <<Verify Result List>> tab on the "Verify Result" screen.

Operating procedure

- **Double-click the row of the data to display the details on the "Verify Result" screen.**



(a) Mismatch in the system setting area

When a mismatch is detected in the parameter area set by the system in the verification set to "All Area", either of the following messages is displayed.

Take corrective action according to the message.

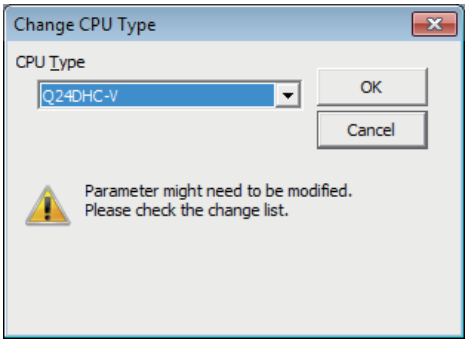
Message	Corrective action
The header information of the parameter blocks is inconsistent.	A mismatch is detected in other than user setting area. Take one of the following corrective actions. • Reset the mismatch part of the parameter. For block number (parameter number), refer to the following manual. 📖 MELSEC-Q C Controller Module User's Manual • Rewrite the parameters having been written to the C Controller module. When a mismatch is detected on the block number AFFF, perform the following operation to reset the area which is set by the system. • Select Project view ⇒ Parameter ⇒ Network Parameter ⇒ Ethernet/CCIE/MELSECNET. Click the End button on the displayed MELSECNET/CCIE/Ethernet Module Configuration screen and write the parameters to the C Controller module. If the mismatch is not resolved, please consult your local Mitsubishi service center or representative, explaining the details of the problem.

4.2.8 Changing CPU type of projects

Change the CPU type of a project being edited.

Display contents

- **Select [Project] ⇒ [Change CPU Type].**



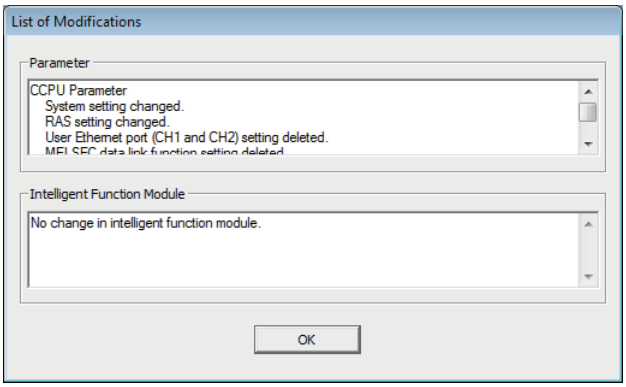
Operating procedure

1. Set the items on the screen.

Item	Description
CPU Type	Select the CPU type after change.

2. Click the [OK] button.

The CPU type of the project is changed to the specified CPU type.
After the Change CPU Type function is completed, the following List of Modifications screen is displayed, and the changes of the parameters can be checked.



Point

The items can be copied and pasted to the text file using the Ctrl+C and Ctrl+V keys.

4.3 Operations of Project Data

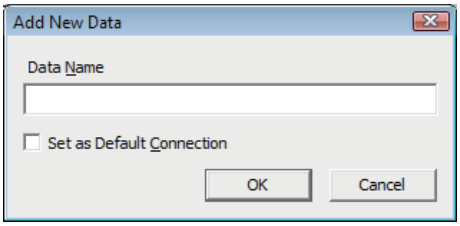
This section explains how to operate data when the connection destination is selected on the Navigation window.

4.3.1 Adding new data (connection destination) to project

Add new data (connection destination) to a project.
The data that can be added is connection destination only.

Screen display

- **Select [Project] ⇒ [Object] ⇒ [New].**



Operating procedure

1. **Set the items on the screen.**

Item	Description
Data Name	Enter the name of the data to be created.
Set as Default Connection	Select this to specify the connection destination to be created for regular use.

2. **Click the** OK **button.**
The created connection destination is added to "All Connections" on the Connection Destination view.

Point

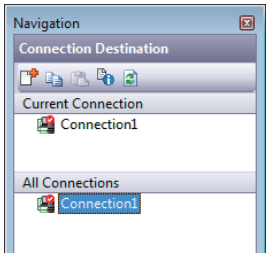
- Maximum number of characters that can be entered for data name
  The maximum number of characters that can be entered for data name is 32.
- Maximum number of data that can be created
  The maximum number of data that can be created is 128.

4.3.2 Copying/pasting data in projects

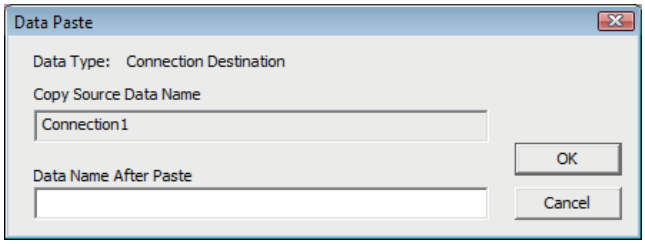
Utilize data of a connection destination being edited or in other projects.

Operating procedure

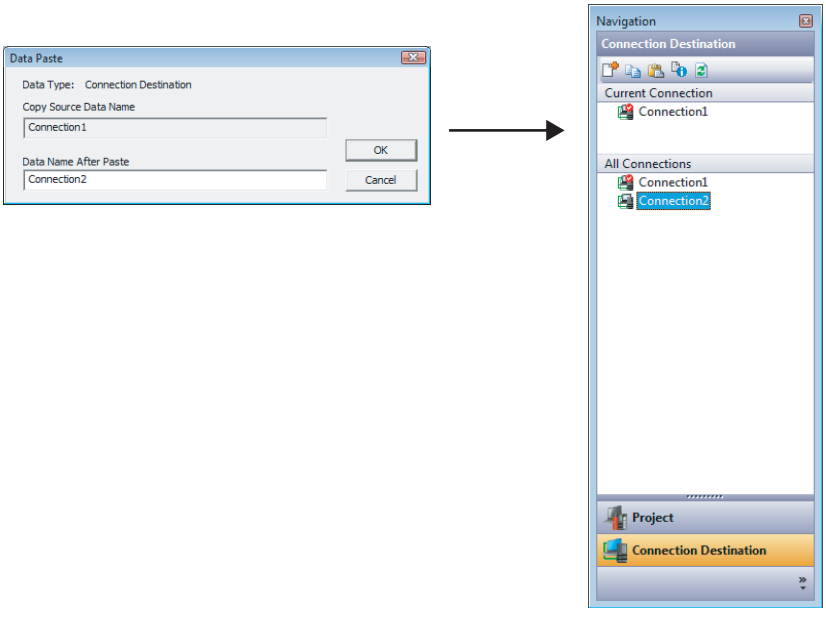
1. **Select the data name of connection destination.**
2. **Select [Project] ⇒ [Object] ⇒ [Copy].**
   The selected connection destination data is copied.



3. **Select the folder to paste the connection destination data.**
4. **Select [Project] ⇒ [Object] ⇒ [Paste].**
   If the same data name exists in the folder where the data is to be pasted, the "Data Paste" screen is displayed.



5. **Enter a new name in the "Data Name After Paste" field, and click the** OK **button.**
   The connection destination data is pasted.



Point

- Copying/pasting data
  - Data can be pasted only to the data that is of the same type as copied data.
  - Multiple data can be copied by holding the Shift or Ctrl key and selecting the data.
  - Data can be copied/pasted by right-clicking data to be copied/folder to be pasted and selecting [Copy]/[Paste] from the shortcut menu, or by dragging and dropping the data from the data to be copied to the folder to be pasted.
  - Copying and pasting only CCPU parameter or Network parameter are not possible. If it is copied individually, the whole parameter files are copied and the files in the folder where the data is to be pasted are overwritten.

4.3.3 Changing project data names

Change the data name of open project.

Operating procedure

1. **Select the data name to be changed on the Project view.**
2. **Select [Project] ⇒ [Object] ⇒ [Rename].**
3. **Change the data name.**
4. **Press the Enter key.**
   The selected data name is changed.

4.3.4 Deleting project data

Delete data in an open project.

Operating procedure

1. **Select the data name to be deleted on the Project view.**
2. **Select [Project] ⇒ [Object] ⇒ [Delete].**
   The selected data is deleted.

Point

- Deleting data
  - Multiple data can be selected and deleted.

4.3.5 Displaying/editing properties

Display data properties of parameters. A title and/or comment can be set to each data.

Screen display

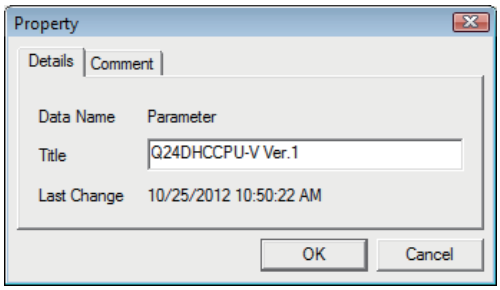
- **For property of project**

  Click on the Project view.

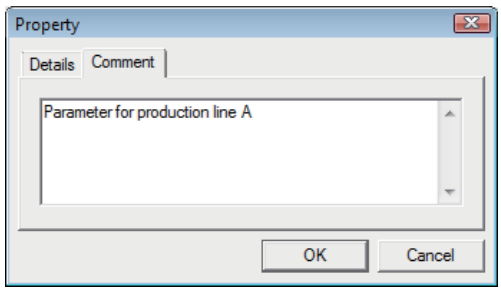
- **For property of each data**

  Select [Project] ⇒ [Object] ⇒ [Property].

<<Detail>>



<<Comment>>



Operating procedure

- **Set the items on the screen.**

Item	Description
Data Name	Display the data name.
Title	Set a title for the data. (The number of applicable characters is 128 for a project and 32 for other data.)
Last Change	Display the date when the data was updated.
Comment	Set a comment for the data. Press the Ctrl and the Enter keys for a line feed. (The number of applicable characters is 5,120.)

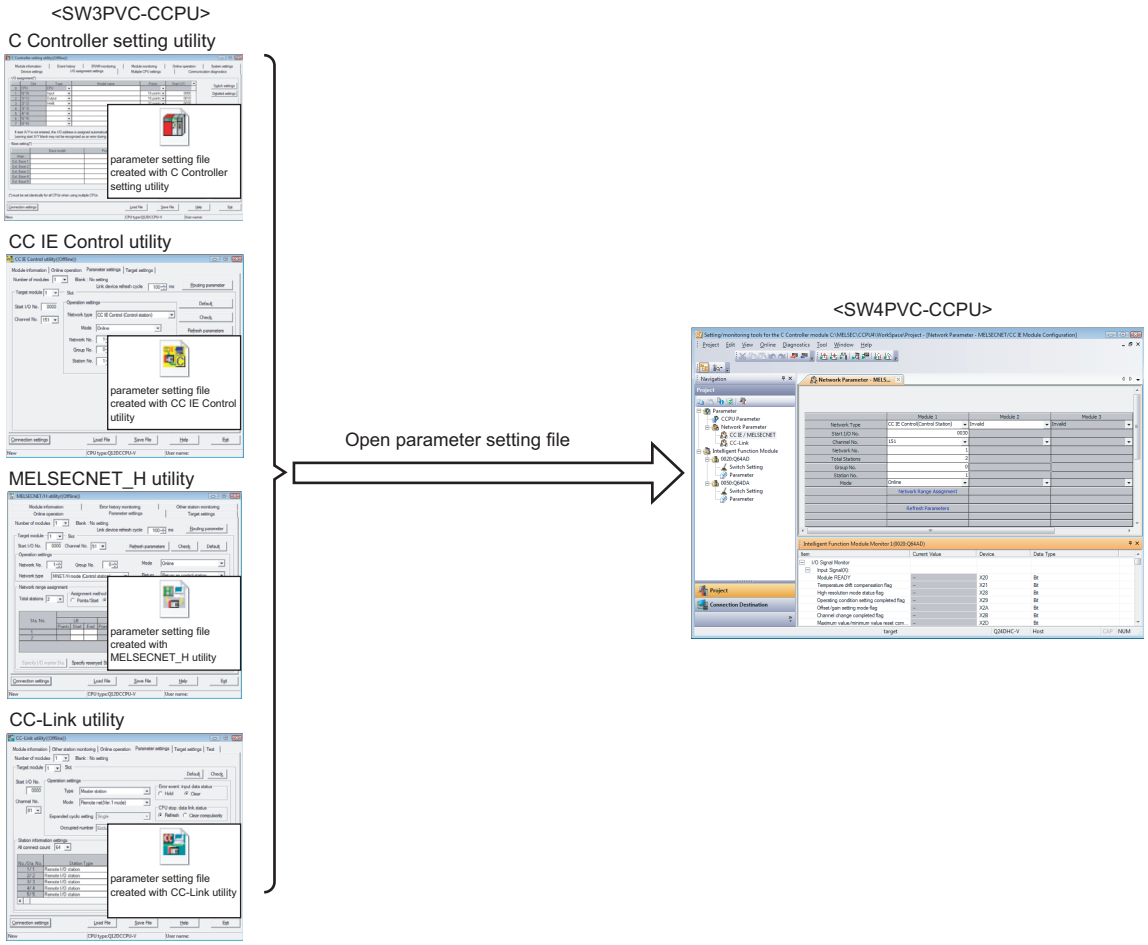
4.4 Utilizing Parameters of Earlier Version

This section explains how to utilize parameter setting file created with SW3PVC-CCPU in SW4PVC-CCPU.

(1) Utilizing parameter setting files

The parameter setting files created with SW3PVC-CCPU can be utilized in SW4PVC-CCPU with [Open parameter setting file].

(☞ Page 55, (1)(a) in this section)


<SW3PVC-CCPU>
C Controller setting utility
parameter setting file created with C Controller setting utility
CC IE Control utility
parameter setting file created with CC IE Control utility
MELSECNET_H utility
parameter setting file created with MELSECNET_H utility
CC-Link utility
parameter setting file created with CC-Link utility
Open parameter setting file
<SW4PVC-CCPU>

Point

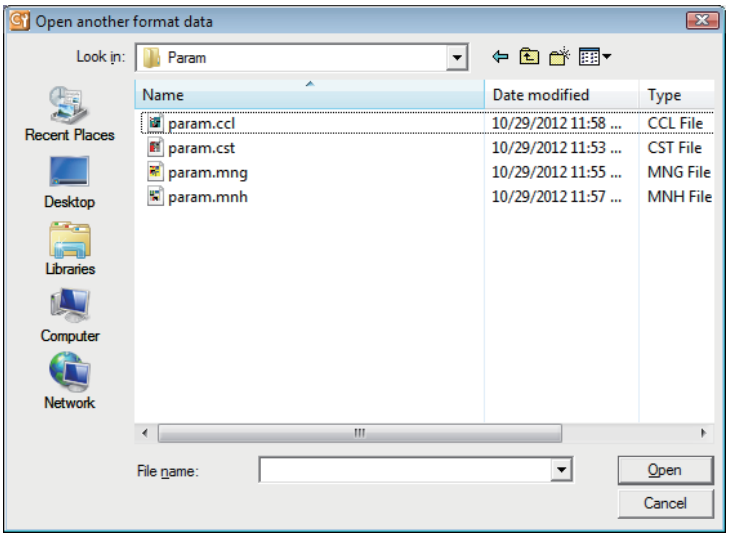
When the parameter setting files created with SW3PVC-CCPU is opened in SW4PVC-CCPU, only the parameters set on each utility are applied to SW4PVC-CCPU. (When the parameters that are already set exist, the read parameters are overwritten.)

(a) Opening parameter setting files

Open the parameter setting files created with SW3PVC-CCPU in SW4PVC-CCPU.

Screen display

- **[Project] ⇒ [Open another format data] ⇒ [Open parameter setting file]**



Operating procedure

- **Select the parameter setting file, and click the Open button.**
  Select "*.cst", "*.mng", "*.mnh", "*.ccl" for a parameter setting file.
  The content of selected parameter setting file is applied to the project.

Point

- Location to which the content of each parameter setting file is applied
  The content of each parameter setting file is applied to the location shown in table below.

Parameter setting file of SW3PVC-CCPU	Location to which SW4PVC-CCPU data is applied.
Setting/monitoring tools for the C Controller module (File name: "*.cst")	CCPU parameter
CC IE Control utility (File name: "*.mng")*1	Network parameter
MELSECNET/H utility (File name: "*.mnh")	
CC-Link utility (File name: "*.ccl")	

*1 : When parameters setting file of CC IE Control utility is opened, parameter settings of CC-Link IE Field Network on SW4PVC-CCPU are overwritten.

CHAPTER 5 SETTING PARAMETERS

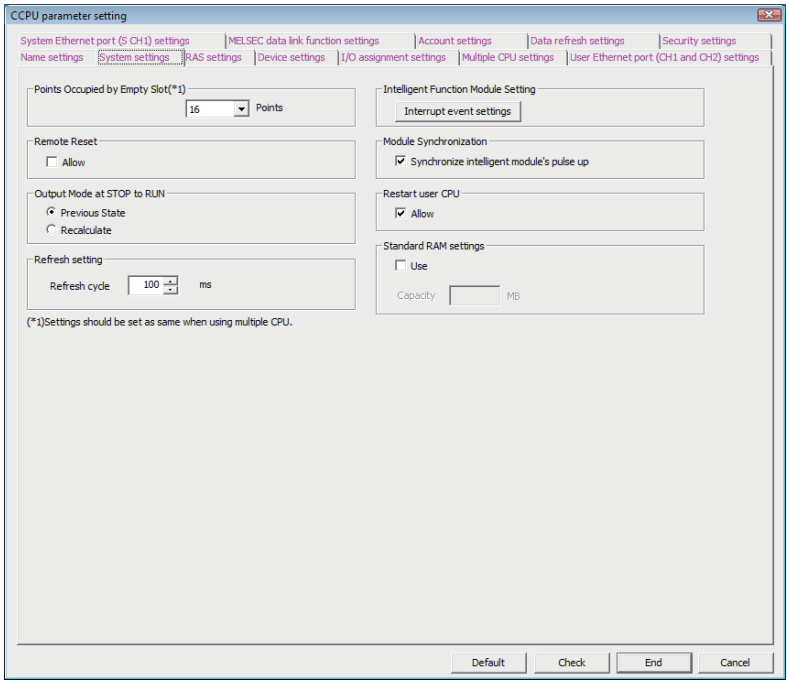
This chapter explains the setting items, operations on the setting screens, and common notes on parameter settings. For necessary information and details of settings, refer to the manuals of each module to be used.

5.1 Setting C Controller Module Parameters

This section explains how to set parameters on the "CCPU parameter setting" screen.

Screen display

- **Select Project view ⇒ "Parameter" ⇒ "CCPU Parameter".**



Display contents

Item	Description
Tab	The setting items are categorized under tabs according to their purpose. • The parameter setting status is displayed by different font colors of the tab names. **Font color / Setting status** Red: Status that data is not set under the tab (Data must be set under the tab for operation.) Blue: Status that data is set under the tab (A red tab name changes to blue after data is set.) Magenta: Default values (The user setting has not set under the tab.) Dark blue: Values other than default values (A magenta tab name changes to dark blue after data is set.) • For details of the setting items, refer to the following section. ☞ Page 57, Section 5.1.1

Screen button

- Default
  Resets all setting items on the screen being open to their defaults.
- Check
  Checks whether the user-set parameters on the screen being open are correct.

5.1.1 C Controller module parameter item list

The following shows the list of CCPU parameter setting items.
For details of each item, refer to the following manual.
MELSEC-Q C Controller Module User's Manual

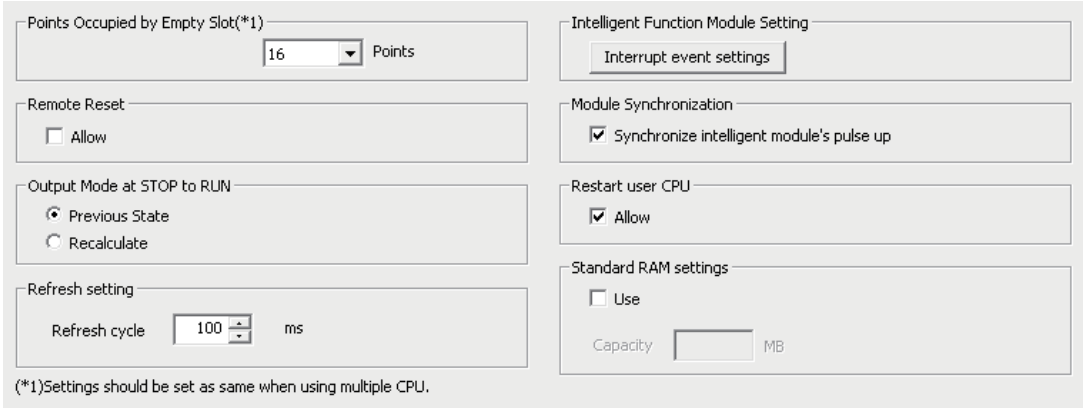
Setting tab name	Reference
Name settings	Page 57, (1) in this section
System settings	Page 58, (2) in this section
RAS settings	Page 60, (3) in this section
Device settings	Page 61, (4) in this section
I/O Assignment settings	Page 62, (5) in this section
Multiple CPU settings	Page 67, (6) in this section
User Ethernet port (CH1 and CH2) settings	Page 71, (7) in this section
System Ethernet port (S CH1) settings	Page 72, (8) in this section
MELSEC data link function settings	Page 75, (9) in this section
Account settings	Page 76, (10) in this section
Data refresh settings	Page 78, (11) in this section
Security settings	Page 80, (12) in this section

(1) Name settings

Item	Description
Label	Set a label (name and application) of the C Controller module. (Maximum of 10 characters)
Comment	Set a comment for the C Controller module. (Maximum of 64 characters)

(2) System settings

Set to use the C Controller module.



Item		Description
Points Occupied by Empty Slot[*1]		Set the number of points occupied by empty slots (select from 0, 16, 32, 64, 128, 256, 512, 1024) for the main base unit/extension base unit.
Remote Reset		–
	Allow	Select this to allow a remote reset operation from Setting/monitoring tools for the C Controller module.
Output Mode at STOP to RUN		Set the status of output (Y) when the programmable controller is switched from STOP to RUN.
Refresh setting		Set the refresh cycle (0, 10 to 2000ms).[*2]
Intelligent Function Module Setting		Display "Intelligent Function Module Interrupt Event Setting" screen by clicking the Interrupt event settings button. (☞ Page 59, (2)(a) in this section)
Module Synchronization		–
	Synchronize intelligent module's pulse up	Select this to synchronize the start-up of the C Controller module with that of the intelligent function module.
Restart user CPU		–
	Allow	Select this to allow restarting the user CPU.
Standard RAM settings[*3]		–
	Use	Select this to use standard RAM.
	Capacity	Set the capacity of standard RAM (1 to 4MB).

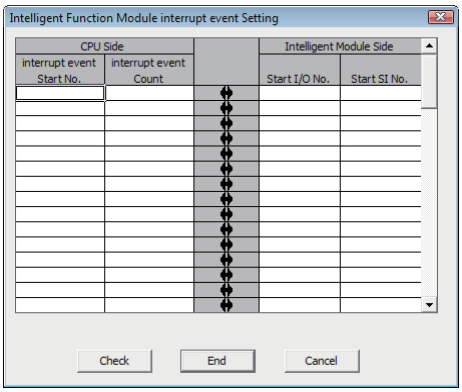
*1 : Settings of each CPU are required to be the same ones in the multiple CPU system.
*2 : The refresh function is not executed when '0' is specified.
*3 : Not supported by Q24DHCCPU-LS.

(a) Intelligent Function Module Interrupt Event Setting screen

Set the interrupt event data of intelligent function module.

For interrupt events from the intelligent function module, refer to the following manual.

MELSEC-Q C Controller Module User's Manual



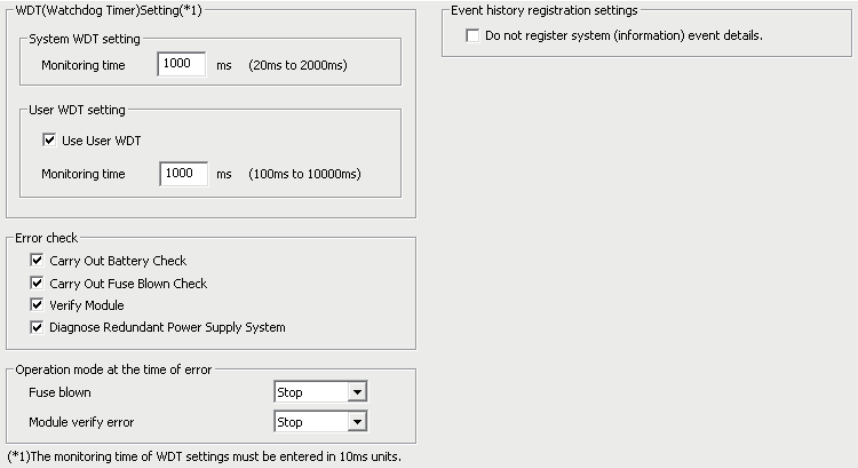
Item		Description
CPU Side		-
	interrupt event Start No.	Set the start number of the interrupt event occurred by interruption from the intelligent function module (50 to 255).
	interrupt event Count	Set the number of the interrupt events occurred by interruption from the intelligent function module (1 to 16).
Intelligent Module Side		-
	Start I/O No.	Set the start I/O number of the intelligent function module (0000H to 0FF0H, 3E00H to 3E30H).
	Start SI No.	Set the start SI number of the intelligent function module (1 to 15).

Point

The following shows the list for interrupt event numbers and interrupt factors.

Interrupt event No.	Interrupt factor	
0	Interruption by interrupt module	1st point
1		2nd point
2		3rd point
3		4th point
4		5th point
5		6th point
6		7th point
7		8th point
8		9th point
9		10th point
10		11th point
11		12th point
12		13th point
13		14th point
14		15th point
15		16th point
16 to 49	Not used	
50 to 255	Intelligent function module interrupt	Specify which intelligent function module is used in parameters.

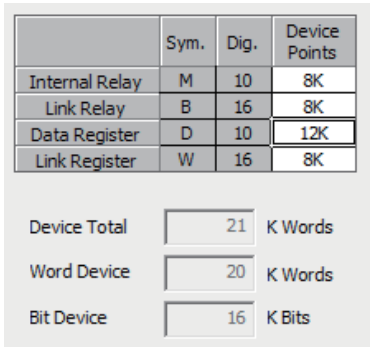
(3) RAS settings



Item			Description
WDT (Watchdog Timer) Setting			–
	System WDT setting		Set the values relating to system WDT (Watch dog timer).
		Monitoring time	Set the monitoring time of system WDT (Watch dog timer) (20 to 2000).
	User WDT Setting*1		Set the values relating to user WDT (Watch dog timer).
		Use user WDT	Select this to use user WDT (Watch dog timer).
		Monitoring time	Set the monitoring time of user WDT (Watch dog timer) (100 to 10000).
Error check			–
	Carry Out Battery Check		Select this to detect a battery error.
	Carry Out Fuse Blown Check		Select this to detect a fuse blow
	Verify Module		Select this to detect an I/O module verification error.
	Diagnose Redundant Power Supply System		Select this to detect a redundant power supply module fault.
Operation mode at the time of error			–
	Fuse blown		Select this for the operation (stop/continue) when a fuse blow is detected.
	Module verify error		Select this for the operation (stop/continue) when a module verification error is detected.
Event history registration settings			–
	Do not register system (information) event details.		Select this when a system (information) event is not registered to event history.

*1 : Not supported by Q24DHCCPU-LS.

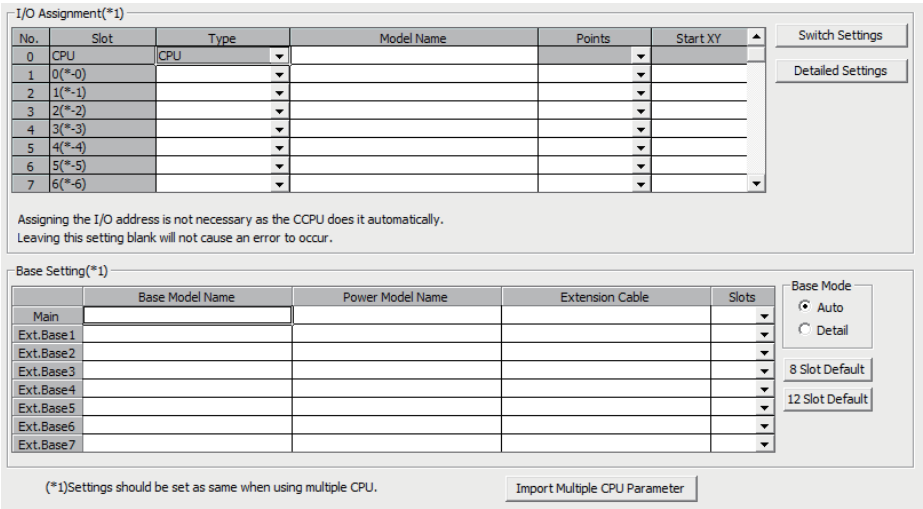
(4) Device



Item		Description
Device Points*1 *2		–
	Internal Relay	Set the number of points (0 to 60K) used for internal relay (M).
	Link Relay	Set the number of points (0 to 640K) used for link relay (B).
	Data Register	Set the number of points (0 to 4086K) used for data register (D).
	Link Register	Set the number of points (0 to 1024K) used for link register (W).
Device Total		Display the total size of the set devices.
	Word Device	Display the size of the set word devices.
	Bit Device	Display the size of the set bit devices.

*1 : Set in units of words.
*2 : For bit device (M, B), count 16 points as one point.

(5) I/O Assignment



Item		Description
I/O Assignment*1		–
	Slot	The slot number and what number of the slot on what number of the stage are displayed for each slot. When the base unit is set in the Auto mode, "*" indicates the base unit stage number and the slot number counted from slot 0 of the main base unit is displayed
	Type	Set the type of module being mounted.
	Model Name*2	Set the mounted module model name. (Maximum of 16 characters)
	Points	Set the points of each slot (select from 0, 16, 32, 64, 128, 256, 512, 1024).
	Start XY	Set the start I/O number of each slot.
Base Setting*1		–
	Base Model Name*2	Set the model name of the used main base unit or extension base unit. (Maximum of 16 characters)
	Power Model Name*2	Set the model name of the power supply module mounted on the main base unit or extension base unit. (Maximum of 16 characters)
	Extension Cable*2	Set the extension cable model name. (Maximum of 16 characters)
	Slots	Set the number of slots of the main base unit or extension base unit (select from 2, 3, 5, 8, 10, 12). Set the number of slots for all base units.
	Base Mode*3	Set the base mode.

*1 : Settings of each CPU are required to be the same ones in the multiple CPU system.
*2 : C Controller module does not use the specified model name. (It is used as a user's memo or for parameter printing)
*3 : For the base mode, refer to the following manual.
MELSEC-Q C Controller Module User's Manual

Screen button

- Switch Settings

  Opens the "Switch Settings for I/O and Intelligent Function Module" screen.
  (☞ Page 65, (5)(a) in this section)
- Detailed Settings

  Opens the "Intelligent Function Module Detailed Settings" screen.
  (☞ Page 66, (5)(b) in this section)
- 8 Slot Default

  Batch-sets each base unit to 8 slots.
- 12 Slot Default

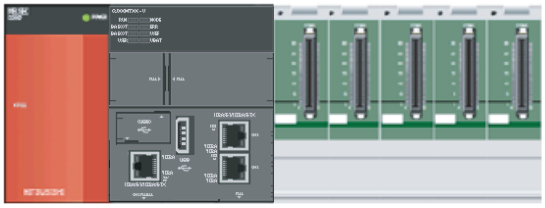
  Batch-sets each base unit to 12 slots.
- Import Multiple CPU Parameter

  (☞ Page 66, (5)(c) in this section)

Point

The following shows the setting example of "Type" and "Points" for I/O assignment of CPU mounting slot.

<Example 1>



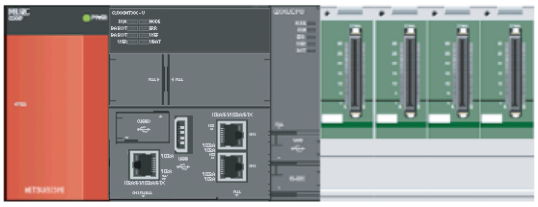
No.1

I/O Assignment(*1)

No.	Slot	Type	Model Name	Points
0	CPU	CPU		
1	0(*-0)	Empty		0 Point
2	1(*-1)	Empty		0 Point
3	2(*-2)			
4	3(*-3)			
5	4(*-4)			
6	5(*-5)			
7	6(*-6)			

- Set "No. of CPU" on the <<Multiple CPU Setting>> tab to 1.
- Set Type to "Empty", Points to "0 Point" for No.1 and No.2.

<Example 2>



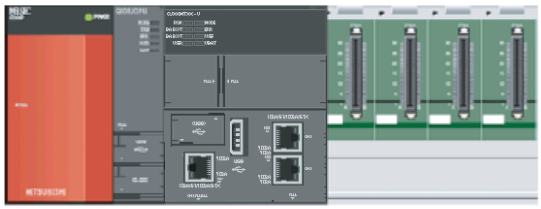
No.1 | No.4

I/O Assignment(*1)

No.	Slot	Type	Model Name	Points
0	CPU	No.1		
1	CPU	CPU(Empty)		
2	CPU	CPU(Empty)		
3	CPU	No.4		
4	3(*-3)			
5	4(*-4)			
6	5(*-5)			
7	6(*-6)			

- Set "No. of CPU" on the <<Multiple CPU Setting>> tab to 4.
- Set Type to "CPU(Empty)" for No.1 and No.2.

<Example 3>



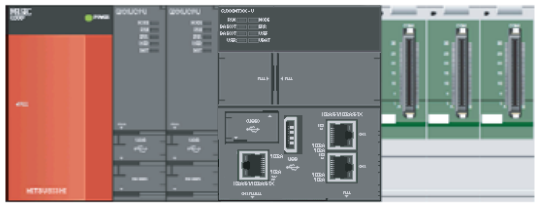
No.1	No.2

I/O Assignment(*1)

No.	Slot	Type	Model Name	Points
0	CPU	No.1		
1	CPU	No.2		
2	CPU	CPU(Empty)		
3	CPU	CPU(Empty)		
4	3(*-3)			
5	4(*-4)			
6	5(*-5)			
7	6(*-6)			

- Set "No. of CPU" on the <<Multiple CPU Setting>> tab to 4.
- Set Type to "CPU(Empty)" for No.2 and No.3.

<Example 4>



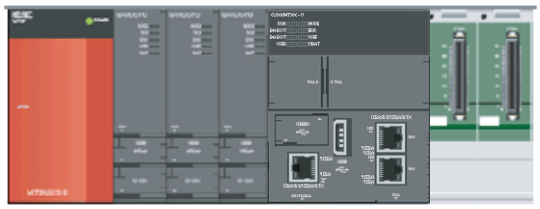
No.1	No.2	No.3

I/O Assignment(*1)

No.	Slot	Type	Model Name	Points
0	CPU	No.1		
1	CPU	No.2		
2	CPU	No.3		
3	CPU	CPU(Empty)		
4	3(*-3)	Empty		0 Point
5	4(*-4)			
6	5(*-5)			
7	6(*-6)			

- Set "No. of CPU" on the <<Multiple CPU Setting>> tab to 4.
- Set Type to "CPU(Empty)" for No.3, and set Type to "Empty", Points to "0 Point" for No.4.

<Example 5>



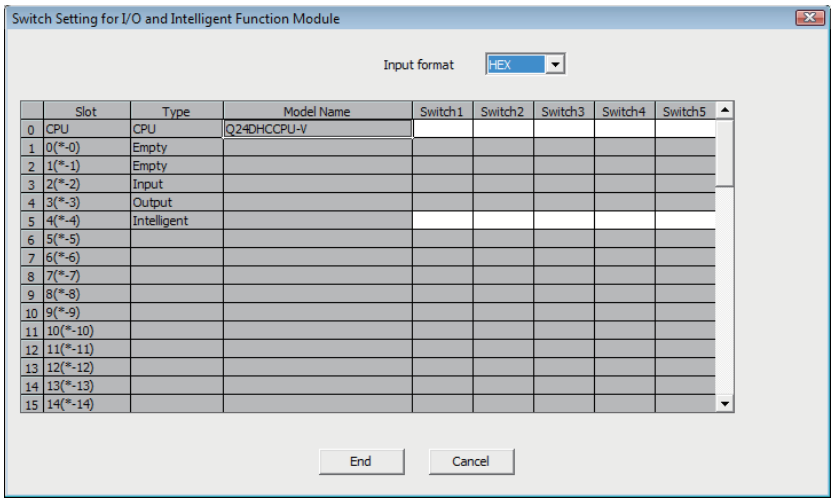
No.1	No.2	No.3	No.4

I/O Assignment(*1)

No.	Slot	Type	Model Name	Points
0	CPU	No.1		
1	CPU	No.2		
2	CPU	No.3		
3	CPU	No.4		
4	3(*-3)	Empty		0 Point
5	4(*-4)	Empty		0 Point
6	5(*-5)			
7	6(*-6)			

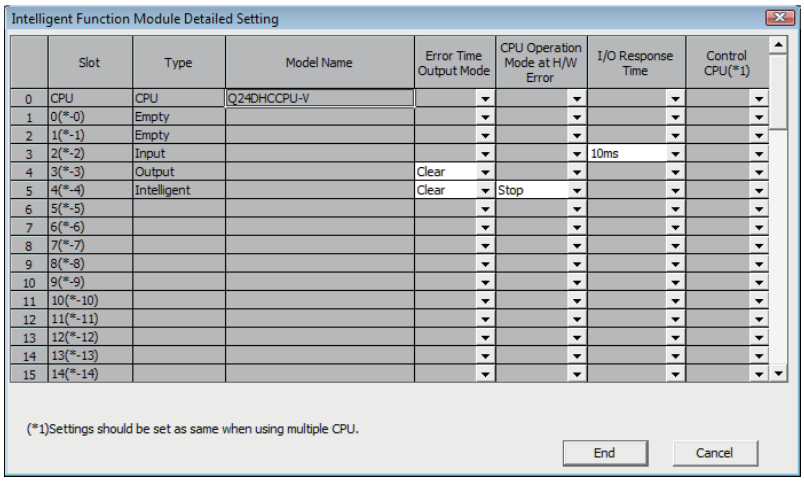
- Set "No. of CPU" on the <<Multiple CPU Setting>> tab to 4.
- Set Type to "Empty", Points to "0 Point" for No.4 and No.5.

(a) Switch setting screen



Item		Description
Input format		Select the input format (binary/decimal/hexadecimal) for switch 1 to 5.
Switch Setting		-
	Type	Display the type set on the I/O Assignment.
	Model Name	Display the model set on the I/O Assignment.
	Switch1 to 5	Set the switch of the CPU module or the intelligent function module (0000 to FFFF).

(b) Detail setting screen



Item	Description
Error Time Output Mode	Set the output mode (Clear/Hold) for error detection.
CPU Operation Mode at H/W Error	Set the CPU operation mode (Stop/Continue) for H/W error detection.
I/O Response Time	Set the I/O response time (ms). High-speed input, interrupt: select from 0.1, 0.2, 0.4, 0.6, 1. Input, I/O combined: select from 1, 5, 10, 20, 70.
Control CPU*1	Set the control CPU (1 to 4).

*1 : Settings of each CPU are required to be the same ones in the multiple CPU system.

(c) Utilizing existing data to set parameters of multiple CPU system

Parameters for multiple CPU system can be set by utilizing existing data by clicking the

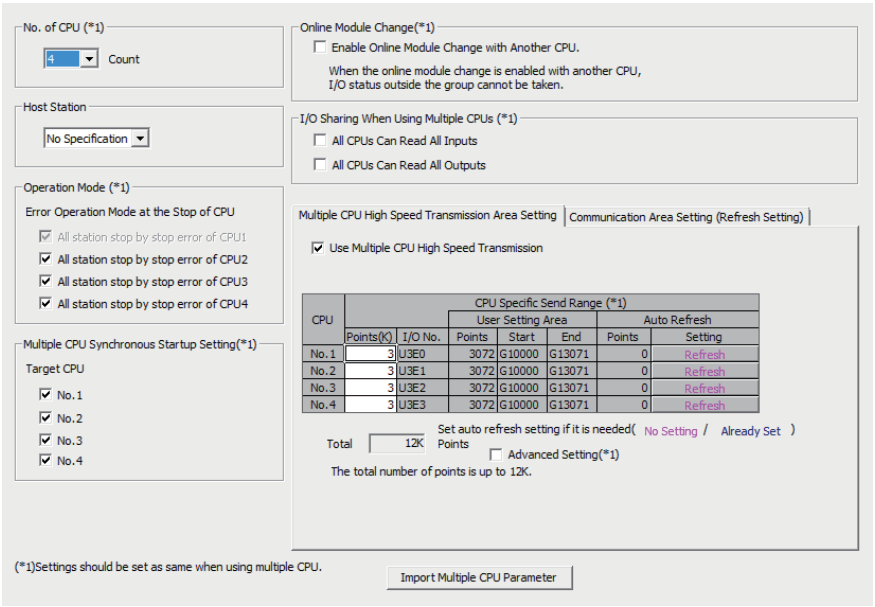
Import Multiple CPU Parameter button on the <<I/O Assignment>>/<<Multiple CPU Setting>> tab.

Point

The data that can be utilized are as follows.

- Setting/monitoring tools for the C Controller module (workspace format/single file format)
- GX Works2 (workspace format/single file format)

(6) Multiple CPU Setting


No. of CPU (*1)
4
Count
Host Station
No Specification
Operation Mode (*1)
Error Operation Mode at the Stop of CPU
All station stop by stop error of CPU1
All station stop by stop error of CPU2
All station stop by stop error of CPU3
All station stop by stop error of CPU4
Multiple CPU Synchronous Startup Setting(*1)
Target CPU
No.1
No.2
No.3
No.4
Online Module Change(*1)
Enable Online Module Change with Another CPU.
When the online module change is enabled with another CPU, I/O status outside the group cannot be taken.
I/O Sharing When Using Multiple CPUs (*1)
All CPUs Can Read All Inputs
All CPUs Can Read All Outputs
Multiple CPU High Speed Transmission Area Setting
Communication Area Setting (Refresh Setting)
Use Multiple CPU High Speed Transmission
CPU
CPU Specific Send Range (*1)
User Setting Area
Auto Refresh
Points(K)
I/O No.
Points
Start
End
Points
Setting
No.1 3 U3E0 3072 G10000 G13071 0 Refresh
No.2 3 U3E1 3072 G10000 G13071 0 Refresh
No.3 3 U3E2 3072 G10000 G13071 0 Refresh
No.4 3 U3E3 3072 G10000 G13071 0 Refresh
Total 12K Points
Set auto refresh setting if it is needed(No Setting / Already Set)
Advanced Setting(*1)
The total number of points is up to 12K.
(*1)Settings should be set as same when using multiple CPU.
Import Multiple CPU Parameter

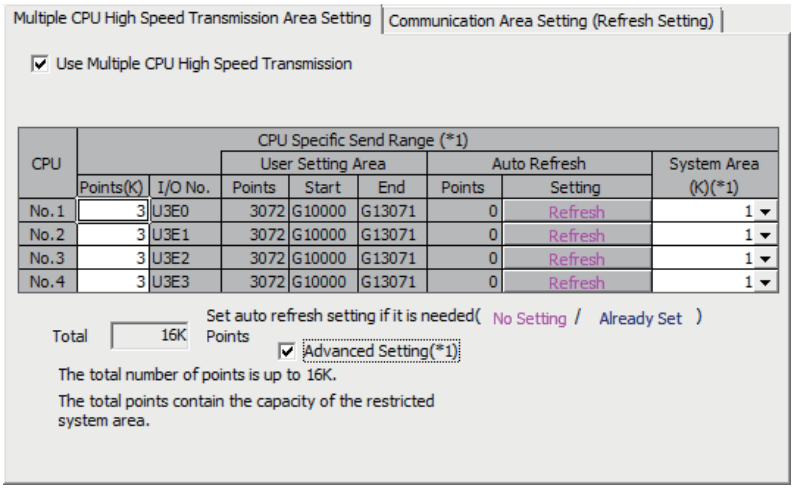
Item	Description
No. of CPU*1	Set the number of CPU modules (1 to 4) used in the multiple CPU system.
Host Station	Set the CPU number (not specified, No.1 to No.4) for the host CPU.
Operation Mode*1,*2	Set the operation mode of the multiple CPU system when a stop error occurs in any of the programmable controller CPU No. 2 to No. 4. The multiple CPU system stops when a stop error occurs in the CPU No. 1.
Multiple CPU Synchronous Startup Setting*1,*2	Select the CPU modules to be started up synchronously.
Online Module Change*1	–
Enable Online Module Change with Another CPU.	Select this to allow the Online module change in the multiple CPU system.
I/O Sharing When Using Multiple CPUs*1	–
All CPUs Can Read All Inputs	Select this to import the input status of the I/O module or intelligent function module controlled by another CPU.
All CPUs Can Read All Outputs	Select this to import the output status of the I/O module or intelligent function module controlled by another CPU.
<<Multiple CPU High Speed Transmission Area Setting>>*3	Set the user setting area, auto refresh, and system area. (☞ Page 68, (6)(a) in this section)
<<Communication Area Setting (Refresh Setting)>>*3	Set the CPU shared memory to enable data sharing among multiple CPUs. (☞ Page 70, (6)(c) in this section)

*1 : Settings of each CPU are required to be the same ones in the multiple CPU system.
*2 : Clear the CPU modules that are not assigned on the I/O assignment setting.
*3 : For the CPU modules that are not assigned on the I/O assignment setting, set "Points" to '0'.

Screen button

- Import Multiple CPU Parameter
  (☞ Page 66, Section 5.1 (5)(c))

(a) Multiple CPU High Speed Transmission Area Setting

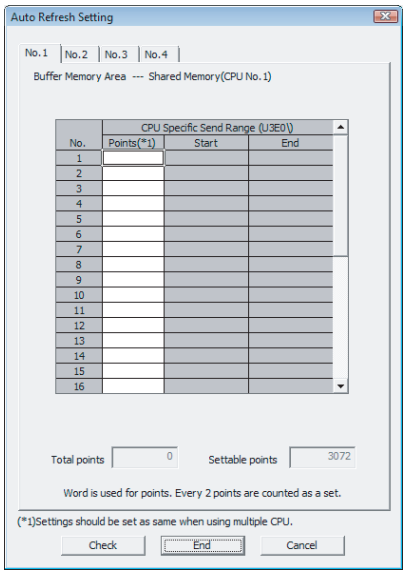

Multiple CPU High Speed Transmission Area Setting
Communication Area Setting (Refresh Setting)
Use Multiple CPU High Speed Transmission
CPU
CPU Specific Send Range (*1)
User Setting Area
Auto Refresh
System Area (K)(*1)
Points(K)
I/O No.
Points
Start
End
Points
Setting
No.1 3 U3E0 3072 G10000 G13071 0 Refresh 1
No.2 3 U3E1 3072 G10000 G13071 0 Refresh 1
No.3 3 U3E2 3072 G10000 G13071 0 Refresh 1
No.4 3 U3E3 3072 G10000 G13071 0 Refresh 1
Total 16K Points
Set auto refresh setting if it is needed(No Setting / Already Set)
Advanced Setting(*1)
The total number of points is up to 16K.
The total points contain the capacity of the restricted system area.

Item		Description
Use Multiple CPU High Speed Transmission		Select this when using multiple CPU high-speed transmission.
CPU Specific Send Range*1		-
	Points*2	Set the points of data to be sent and received between CPUs.
	User Setting Area	Display the content (Points, Start, End) calculated by send range for CPU and points of auto refresh with utility.
	Auto Refresh	Set the points of the multiple CPU high-speed transmission area where each CPU module performs auto refresh. Open "Auto Refresh Setting" screen by clicking the Refresh button. (☞ Page 69, (6)(b) in this section)
	System Area	Set size (K) for the system area that is used as the multiple CPU high-speed transmission area.
Total		Display the send range for each CPU and total points of auto refresh.
Advanced Setting*1		Select this to use the system area.

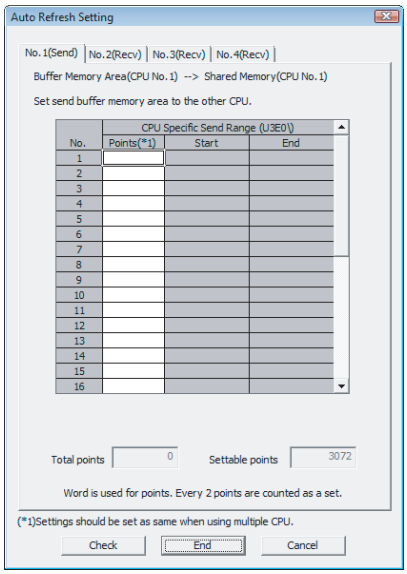
*1 : Settings of each CPU are required to be the same ones in the multiple CPU system.
*2 : For "Points" of CPUs that are not assigned the number, set to '0'.

(b) Auto Refresh Setting

<When the CPU number is not specified for the host CPU>



<When the CPU number (No.1 to No.4) is specified for the host CPU>

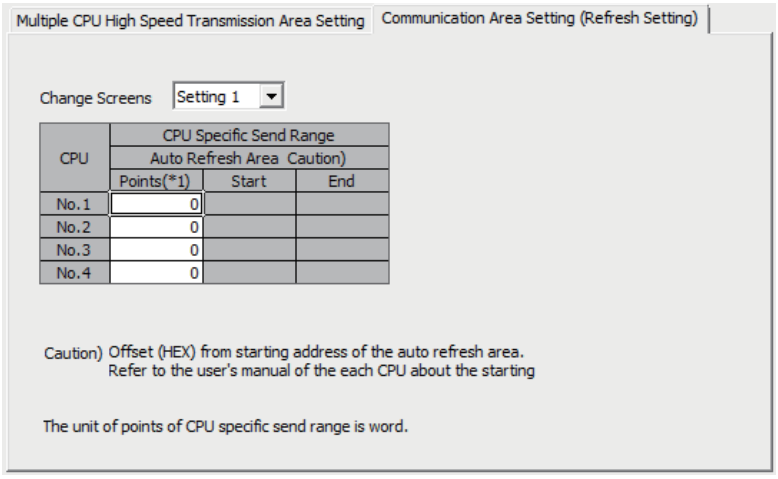


Item		Description
CPU No. tab*1		Display the tabs for the number of CPUs set on the "Multiple CPU settings" screen.
No.		Display the set number of auto refresh.
CPU Specific Send Range*2		-
	Points	Set the points of data update by auto refresh between CPUs. Display "Start" and "End" with automatic calculation.
Total points		Display the total points set in auto refresh.
Settable points		Display the maximum points that can be set in auto refresh.

*1 : This is not displayed when "Number of CPUs" is set to '1'.

*2 : Settings of each CPU are required to be the same ones in the multiple CPU system.

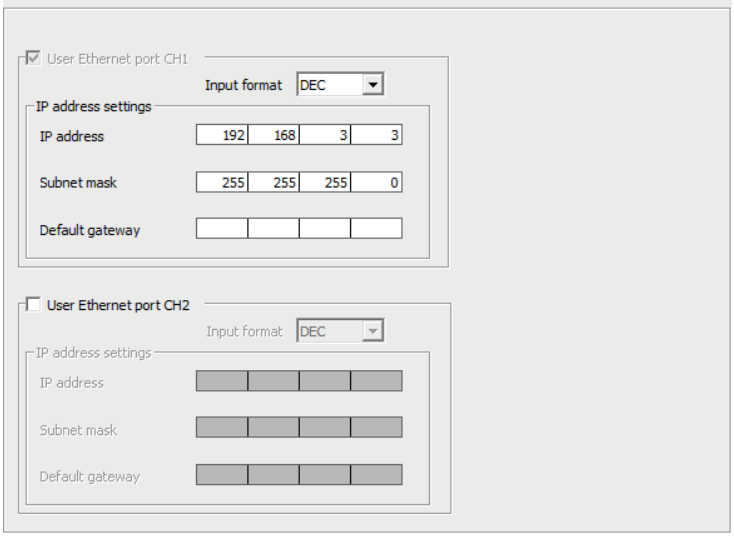
(c) Communication Area Setting (Refresh Setting)



Item		Description
Change Screens		Set the target (Setting 1 to Setting 4) to be set the range.
CPU Specific Send Range*1		-
	Points*2	Set the points of the auto refresh area for the data to be updated by auto refresh between CPUs. Display "Start" and "End" with automatic calculation.

*1 : Settings of each CPU are required to be the same ones in the multiple CPU system.
*2 : For "Points" of CPUs that are not assigned the number, set to '0'.

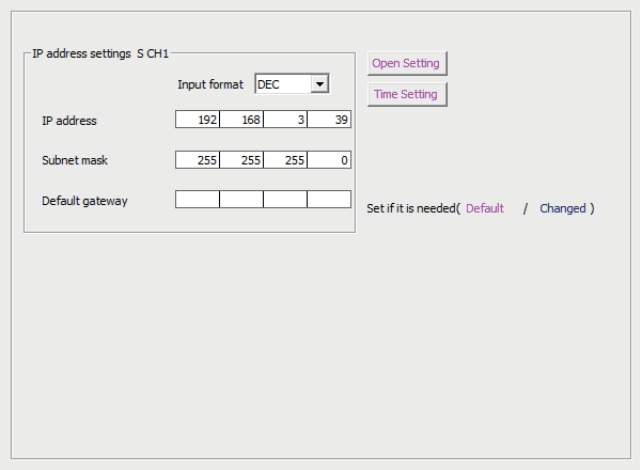
(7) User Ethernet port (CH1 and CH2) settings



Item		Description
User Ethernet port CH1*1		Set whether to enable or disable the 10BASE-T/100BASE-TX/1000BASE-T interface of CH1.
	Input format	Set the input format (decimal/hexadecimal) of the IP address.
	IP address	Set the IP address for the 10BASE-T/100BASE-TX/1000BASE-T interface of CH1.
	Subnet mask	Set the subnet mask for the 10BASE-T/100BASE-TX/1000BASE-T interface of CH1.
	Default gateway	Set the IP address of the default gateway for the 10BASE-T/100BASE-TX/1000BASE-T interface of CH1.
User Ethernet port CH2*1		Set whether to enable or disable the 10BASE-T/100BASE-TX/1000BASE-T interface for CH2.
	Input format	Set the input format (decimal/hexadecimal) of the IP address.
	IP address	Set the IP address for the 10BASE-T/100BASE-TX/1000BASE-T interface of CH2.
	Subnet mask	Set the subnet mask for the 10BASE-T/100BASE-TX/1000BASE-T interface of CH2.
	Default gateway	Set the IP address of the default gateway for the 10BASE-T/100BASE-TX/1000BASE-T interface of CH2.

*1 : Not supported by Q24DHCCPU-LS.

(8) System Ethernet port (S CH1) settings



Item		Description
IP address setting S CH1		–
	Input format	Set the input format (decimal/hexadecimal) of the IP address.
	IP address	Set the IP address for the 10BASE-T/100BASE-TX interface of S CH1.
	Subnet Mask	Set the subnet mask for the 10BASE-T/100BASE-TX interface of S CH1.
	Default gateway	Set the IP address of the default gateway for the 10BASE-T/100BASE-TX interface of S CH1.

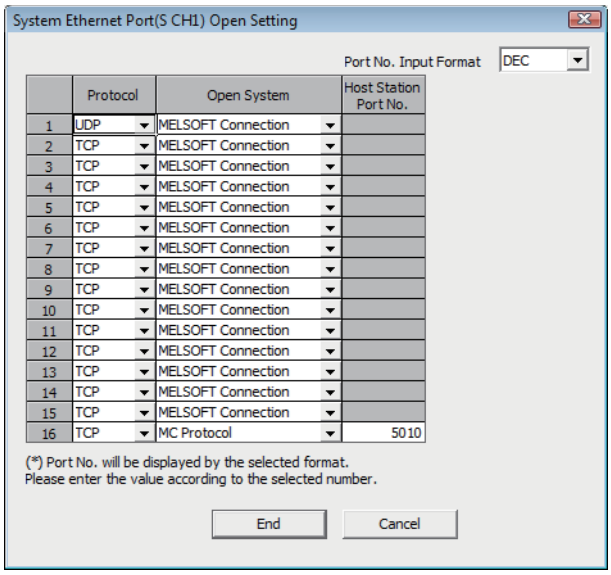
Screen button

- Open Setting

  Sets the protocol, open system, and host station port number.
  (☞ Page 73, (8)(a) in this section)
- Time Setting

  Sets whether to use the SNTP function, and set the timing of the time setting.
  (☞ Page 74, (8)(b) in this section)

(a) System Ethernet Port Open Setting screen

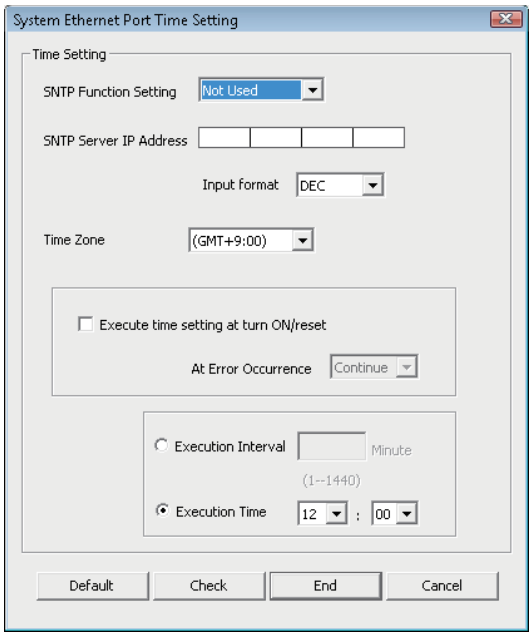

System Ethernet Port(S CH1) Open Setting
Port No. Input Format
DEC
Protocol
Open System
Host Station Port No.
1 UDP MELSOFT Connection
2 TCP MELSOFT Connection
3 TCP MELSOFT Connection
4 TCP MELSOFT Connection
5 TCP MELSOFT Connection
6 TCP MELSOFT Connection
7 TCP MELSOFT Connection
8 TCP MELSOFT Connection
9 TCP MELSOFT Connection
10 TCP MELSOFT Connection
11 TCP MELSOFT Connection
12 TCP MELSOFT Connection
13 TCP MELSOFT Connection
14 TCP MELSOFT Connection
15 TCP MELSOFT Connection
16 TCP MC Protocol 5010
(*) Port No. will be displayed by the selected format.
Please enter the value according to the selected number.
End
Cancel

Item	Description
Protocol	Sets the TCP/IP protocol (TCP/UDP).
Open System	Sets the open system (MC Protocol/MELSOFT Connection).
Host Station Port No.	When "MC Protocol" is selected for "Open System", enter the host station port number in the following range. Decimal: 1025 to 4999, 5010 to 65534 Hexadecimal: 0401H to 1387H, 1392H to FFFEH
Port No. Input Format	Select the input format (decimal/hexadecimal) of the host station port number.

Point

Select "MELSOFT Connection" for "Open System" when connecting to Setting/monitoring tools for the C Controller module or the MELSOFT product (such as GX Works2).

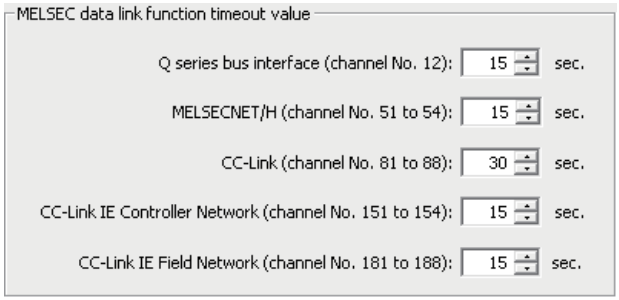
(b) System Ethernet Port Time Setting screen



Item	Description
SNTP Function Setting	Set whether to use this function.
SNTP Server IP Address	Set the SNTP server IP address.
Input format	Select the input format (decimal/hexadecimal) of the SNTP server IP address.
Time Zone	Set the time zone in which the time is to be synchronized.
Execute time setting at turn ON/reset	Select this to execute the time setting function when the C Controller module is powered ON or reset.
At Error Occurrence	Set for the operation (Continue/Stop) for a time setting error occurrence when the C Controller module is powered ON or reset.
Execution Interval*1	Select this to execute the time setting function at a specified time interval, and set in minute unit.
Execution Time*1	Select this to execute the time setting function at a specified time, and set in 30-minute unit.

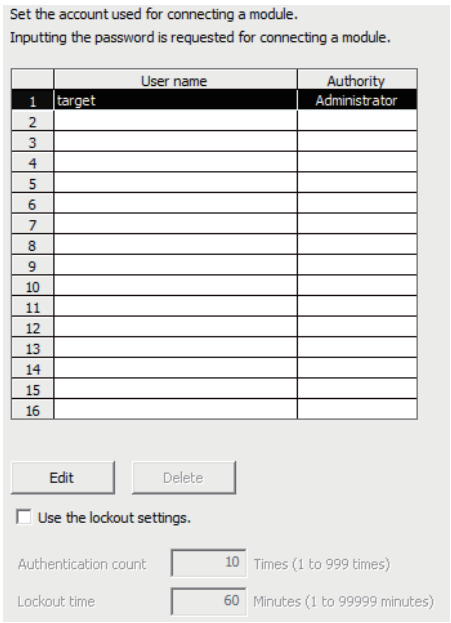
*1 : For Execution Interval and Execution time, either of two options must be selected.

(9) MELSEC data link function settings


MELSEC data link function timeout value
Q series bus interface (channel No. 12): 15 sec.
MELSECNET/H (channel No. 51 to 54): 15 sec.
CC-Link (channel No. 81 to 88): 30 sec.
CC-Link IE Controller Network (channel No. 151 to 154): 15 sec.
CC-Link IE Field Network (channel No. 181 to 188): 15 sec.

Item	Description
Q series bus interface (channel No. 12)	Set the timeout value (second) of the communications performed by MELSEC data link function via Q series bus interface (channel No.12).
MELSECNET/H (channel No. 51 to 54)	Set the timeout value (second) of the communications performed by MELSEC data link function via MELSECNET/H (channel No.51 to 54).
CC-Link (channel No. 81 to 88)	Set the timeout value (second) of the communications performed by MELSEC data link function via CC-Link (channel No. 81 to 88).
CC-Link IE Controller Network (channel No. 151 to 154)	Set the timeout value (second) of the communications performed by MELSEC data link function via CC-Link IE Controller Network (channel No. 151 to 154).
CC-Link IE Field Network (channel No. 181 to 188)	Set the timeout value (second) of the communications performed by MELSEC data link function via CC-Link IE Field Network (channel No. 181 to 188).

(10)Account settings



Item		Description
Use the lockout settings.		Select this to use the lockout setting of account.
	Authentication count*1	Set the number of retry times for activation before being lockout status.
	Lockout time*1	Set the lockout duration (minute) when the number of retry times for activation exceeds the set times.

*1 : Available only when "Use the lockout settings." is selected.

Screen button

- Edit

  Opens the "Account settings" screen to edit the selected account settings by selecting the account to be edited.

  (☞ Page 77, (10)(a) in this section)

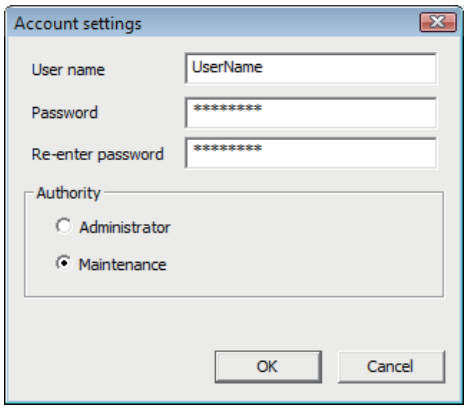
- Delete

  Deletes the selected account.

(a) Account settings screen

A maximum of 16 accounts can be set.

More than one administrator authority account is required.



Item	Description
User name*1,*2	Set a user name (with 1 to 20 characters).
Password*1,*2	Set a password (with 8 to 16 characters).
Re-enter password*1,*2	Re-enter the password.
Authority*1	Select from Administrator and Maintenance.

*1 : The user with User name: target, Password: password Re-enter password: password, Authority: Administrator is set by default.

*2 : Applicable characters are one-byte alphanumeric characters and one-byte special characters. (Case-sensitive)
Inapplicable characters for user name are (space, " , :), for password (space, ", @).

Point

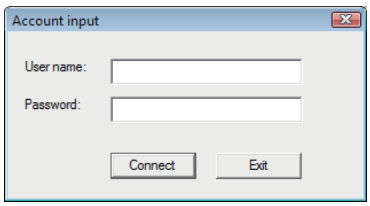
Take measures at user's discretion if security of the C Controller module requires to be maintained against unauthorized access from external devices.
Set an account (user name and password) to prevent it from being leaked.

- Avoid a simple setting composed of alphanumeric characters only.
- Include such as symbols ($&?) to make the user name and password complicated.

(b) Account input screen

When an operation restricted by account is performed, the following dialog is displayed at the first connection.

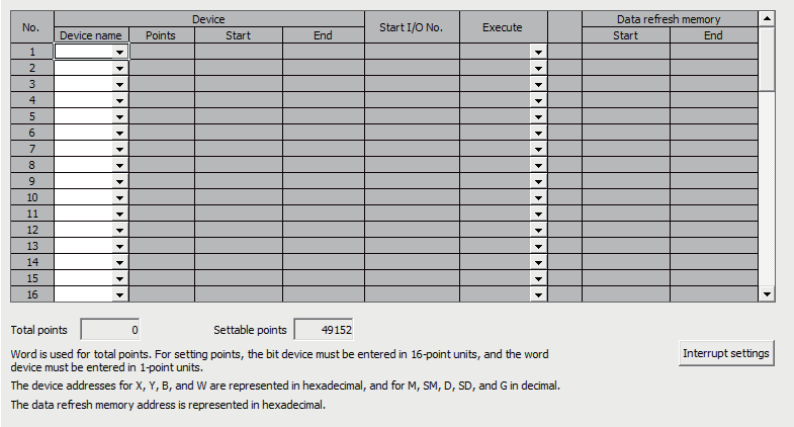
Enter the user name and password to enable the operations.



For the list of operations restricted by account, refer to the following manual.

MELSEC-Q C Controller Module User's Manual

(11)Data refresh settings


No.
Device
Device name
Points
Start
End
Start I/O No.
Execute
Data refresh memory
Start
End
Total points
0
Settable points
49152
Word is used for total points. For setting points, the bit device must be entered in 16-point units, and the word device must be entered in 1-point units.
The device addresses for X, Y, B, and W are represented in hexadecimal, and for M, SM, D, SD, and G in decimal.
The data refresh memory address is represented in hexadecimal.
Interrupt settings

Item		Description
Device		–
	Device name	Set the name of device to be refreshed.
	Points*1	Set the points of device (in units of words) to be refreshed.
	Start	Set the start number of device to be refreshed.
	End	Display the end number of device to be refreshed by automatic calculation.
Start I/O No.		Set the start I/O number of corresponding module when an intelligent function module or multiple CPU shared memory is set to a device. For start I/O number, refer to the following manual. MELSEC-Q C Controller Module User's Manual
Execute		Select from Read/Write.
Data refresh memory		-
	Start	Set automatically by Device name, Start.
	End	Set automatically by Device name, Start, Points.
Total points*2		Display the total of set data refresh points (in units of words).
Settable points*2		Display the maximum points of data refresh that can be set (in units of words).

*1 : For bit device (X, Y, M, B, SM), set in 16-point units.
*2 : For bit device (X, Y, M, B, SM), count 16 points as one point.

Screen button

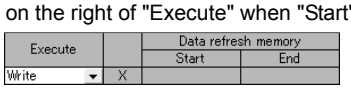
- Interrupt settings

  Displays the "Data refresh interrupt settings" screen. (☞ Page 79, (11)(a) in this section)

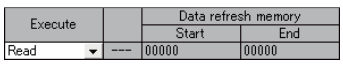
Point

Setting devices that perform refresh

- "X" is displayed on the right of "Execute" when "Start" column is not set properly.

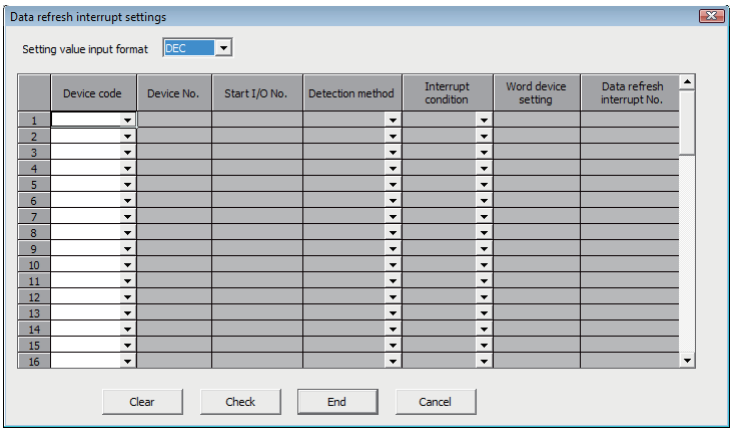


- "---" is displayed on the right of "Execute" when "Start" column is set properly.



Set for "Start" column and check that "---" is displayed on the right of "Execute".

(a) Data refresh interrupt settings



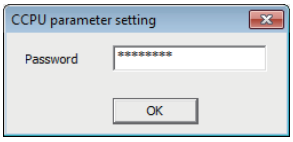
Item	Description
Setting value input format	Select the input format (decimal/hexadecimal) of word device setting value.
Device code	Set the device to be interrupt trigger. For devices that can be specified, refer to the following manual. MELSEC-Q C Controller Module User's Manual
Device No.	Set the device number to be interrupt trigger.
Start I/O No.	Specify the I/O position of such as network module that executes data refresh.
Detection method	Select from Level detection, Edge detection, Change.
Interrupt condition	See table below.
Word device setting	Set the device value to compare as interrupt condition when the word device is specified for device name.
Data refresh interrupt No.	Set the interrupt number (0 to 63) occurred when the conditions are satisfied.

Detection method	Interrupt condition	
	Bit device	Word device
Level detection	ON, OFF	Unequal, Equal
Edge detection		
Change	Not selectable	Not selectable

(12)Security settings

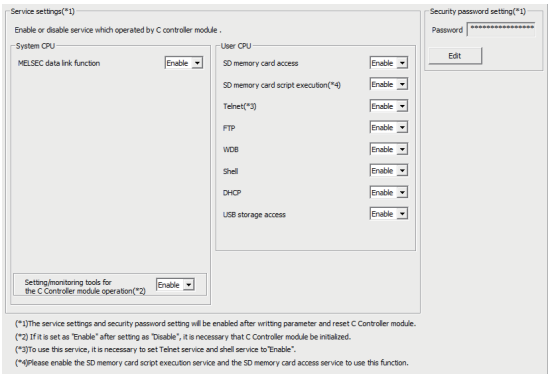
Point

To display the "Security setting" screen, enter the security password (initial setting: "password") in the <<Security settings>> tab on the "CCPU parameter setting" screen.

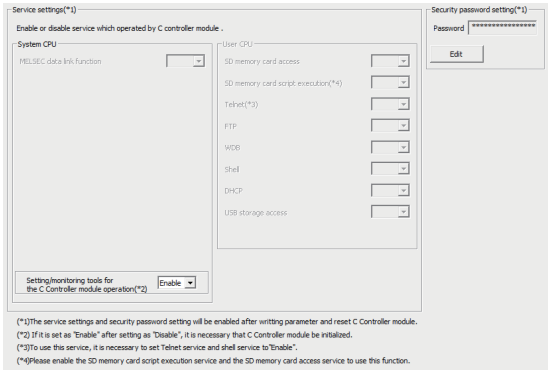


- The password can be changed on the "Security password setting" screen. (☞ Page 81, (12)(a) in this section)
- The entered password is valid until the End button or the Cancel button is clicked.

<Q24DHCCPU-V>


Service settings(*1)
Enable or disable service which operated by C controller module .
System CPU
MELSEC data link function
Enable
User CPU
SD memory card access
SD memory card script execution(*4)
Telnet(*3)
FTP
WDB
Shell
DHCP
USB storage access
Setting/monitoring tools for the C Controller module operation(*2)
Security password setting(*1)
Password
Edit
(*1)The service settings and security password setting will be enabled after writting parameter and reset C Controller module.
(*2) If it is set as "Enable" after setting as "Disable", it is necessary that C Controller module be initialized.
(*3)To use this service, it is necessary to set Telnet service and shell service to"Enable".
(*4)Please enable the SD memory card script execution service and the SD memory card access service to use this function.

<Q24DHCCPU-LS>


Service settings(*1)
Enable or disable service which operated by C controller module .
System CPU
MELSEC data link function
User CPU
SD memory card access
SD memory card script execution(*4)
Telnet(*3)
FTP
WDB
Shell
DHCP
USB storage access
Setting/monitoring tools for the C Controller module operation(*2)
Enable
Security password setting(*1)
Password
Edit
(*1)The service settings and security password setting will be enabled after writting parameter and reset C Controller module.
(*2) If it is set as "Enable" after setting as "Disable", it is necessary that C Controller module be initialized.
(*3)To use this service, it is necessary to set Telnet service and shell service to"Enable".
(*4)Please enable the SD memory card script execution service and the SD memory card access service to use this function.

Item			Description
Service settings			For details of each setting, refer to the following manual. MELSEC-Q C Controller Module User's Manual
	System CPU		–
		Setting/monitoring tools for the C Controller module	Set whether to enable the service of Setting/monitoring tools for the C Controller module on the system CPU.
		MELSEC data link function	Set whether to enable the MELSEC data link function service on the system CPU.
	User CPU		–
		SD memory card access	Set whether to enable the SD memory card access service on the user CPU.
		SD memory card script execution	Set whether to enable the SD memory card script execution service on the user CPU.
		Telnet	Set whether to enable the Telnet service on the user CPU.
		FTP	Set whether to enable the FTP service on the user CPU.
		WDB	Set whether to enable the WDB service on the user CPU.
		Shell	Set whether to enable the Shell service on the user CPU.
		DHCP	Set whether to enable the DHCP service on the user CPU.
		USB storage access	Set whether to enable the USB storage access service on the user CPU.
Security password setting			–
	Password		Set a password required for the file access restriction function and to display the "Security settings" screen.

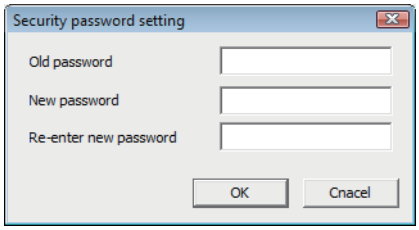
Screen button

- Edit

  Displays the "Security password setting" screen. (Page 81, (12)(a) in this section)

(a) Security password setting screen

Set a password required for the file access restriction function and to display the "Security settings" screen.



Item	Description
Old password*1	Enter the current password. (Default: "password")
New password*1	Set a password (8 to 16 characters).
Re-enter new password*1	Re-enter the password.

*1 : Applicable characters are one-byte alphanumeric characters and one-byte special characters. (Case-sensitive)
Inapplicable characters for the password: space, ", @

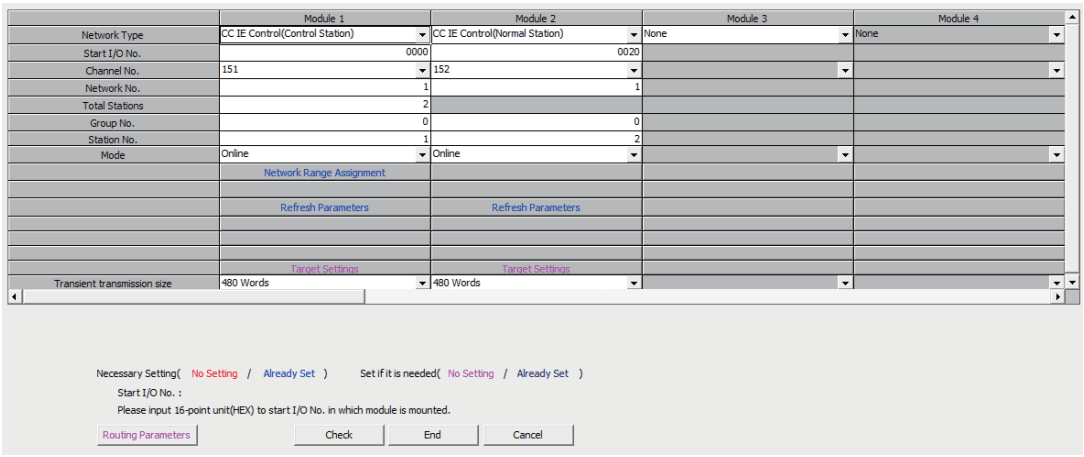
5.2 Setting Network Parameters

This section explains how to set the network parameters.

(1) CC-Link IE/MELSECNET parameter setting

Screen display

- **Select Project view ⇒ "Parameter" ⇒ "Network Parameter".**
  ⇒ "CC IE/MELSECNET".
  The screen below is a screen for setting the number of MELSECNET/CC IE cards.



Screen button

- Routing Parameters

  Displays the "Routing parameters setting" screen.
  (☞ Page 90, Section 5.2.1 (5))

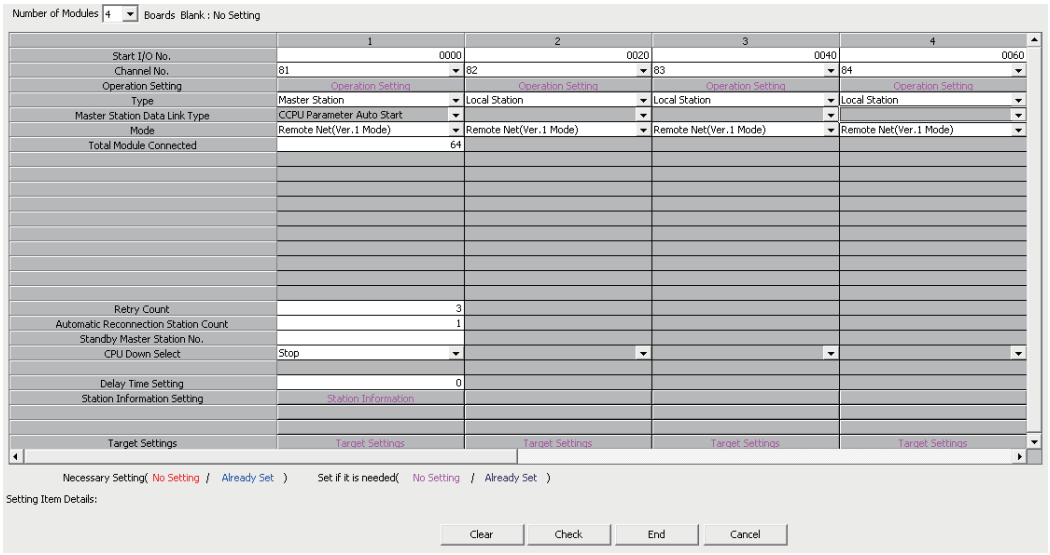
- Check

  Checks whether the set parameters are correct.

(2) CC-Link parameter setting

Screen display

- **Select Project view ⇒ "Parameter" ⇒ "Network Parameter" ⇒ "CC-Link".**



Screen button

- Clear

  Deletes the set parameters.

- Check

  Checks whether the set parameters are correct.

5.2.1 Network parameter item list

The following table shows the list of parameter setting items for network.

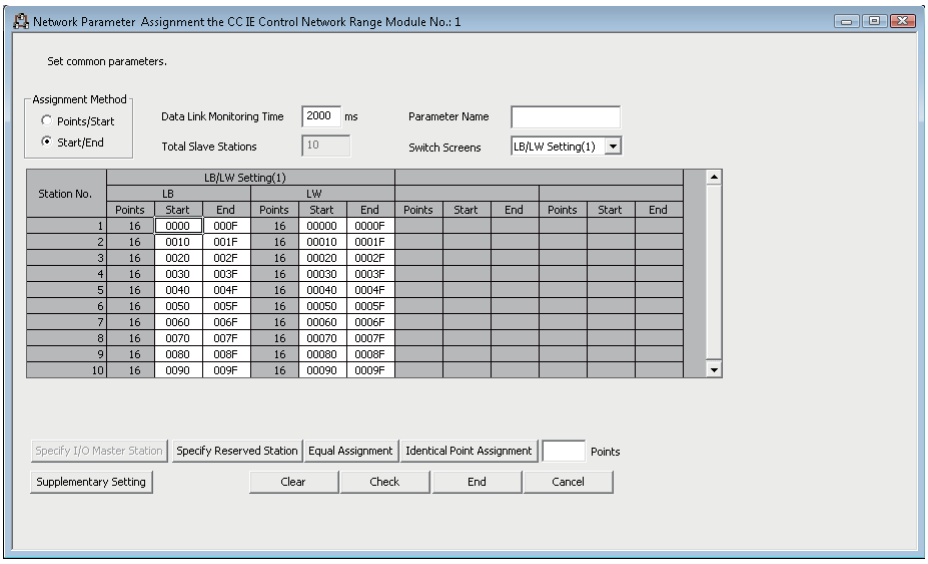
Item	Reference
CC-Link IE Controller Network setting	Page 84, (1) in this section
CC-Link IE Field Network setting	Page 87, (2) in this section
MELSECNET/H setting	Page 88, (3) in this section
CC-Link setting	Page 89, (4) in this section
Routing parameter setting	Page 90, (5) in this section
Refresh parameter setting	Page 90, (6) in this section

(1) CC-Link IE Controller Network setting

Item	Description
Network Type	Specify the network type (CC-Link IE Control) whose parameters are to be set.
Start I/O No.	Set the start I/O number (0000 to 0FE0) in 16-point unit.
Channel No.	Set the channel number (151 to 154) used for MELSEC data link function.
Network No.	Set the network number (1 to 239).
Total Stations	Set the total number of (slave) stations (2 to 120).
Group No.	Set the group number (1 to 32). Set to '0' when a group is not specified.
Station No.	Enter the station number (1 to 120) of module.
Mode	Set the mode.
Network Range Assignment	To the control station, assign each station's send range required for cyclic transmission and configure supplementary settings for data communication. (☞ Page 85, (1)(a) in this section)
Refresh Parameters	Set the link devices of the CC-Link IE Controller Network module and C Controller module, and the range of transfer between internal user devices. (☞ Page 90, (6) in this section)
Target settings	Set the network number, station number and target CPU accessed as logical station number. (☞ Page 86, (1)(b) in this section)
Transient transmission size*1	Set the maximum transmission size (480 words/960 words) when executing the transient transmission via other network numbers with MELSEC data link function.

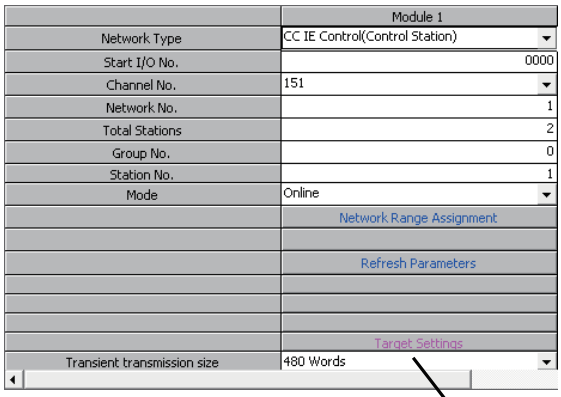
*1 : When the data that exceeds the maximum size set for "Transient transmission size" is specified in MELSEC data link function, the data is divided and sent. Note that in SEND function of the mdSendEx function, the data that exceeds the maximum size set for "Transient transmission size" cannot be sent.

(a) Network range assignment screen

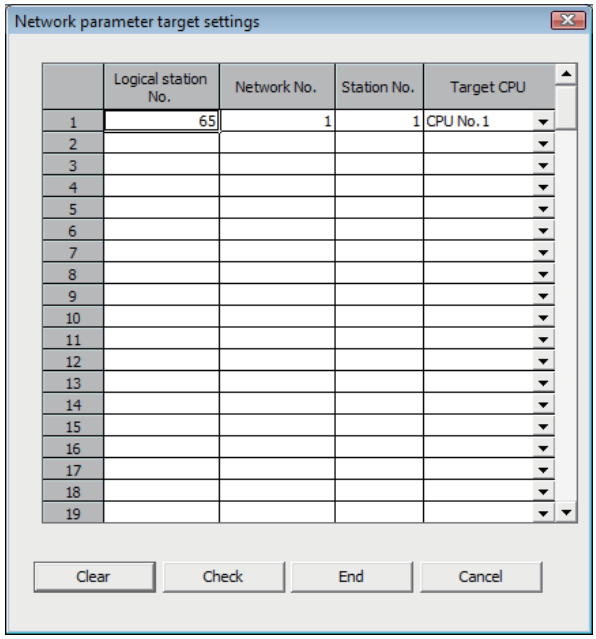


Item	Description
Assignment Method	Select from Points/Start or Start/End.
Data Link Monitoring Time	Set the data link monitoring time (ms).
Parameter Name	Set the name of parameter.
Total Slave Stations	Display the number of total slave stations.
Switch Screens	Switch the screens between LB/LW or LX/LY.
LB/LW or LX/LY Setting	Assign each station of cyclic data LB/LW or LX/LY.
Specify I/O Master Station	Specify the I/O master station.
Specify Reserved Station	Specify the reserved station.
Equal Assignment	Assign the number of link device points of all stations equally.
Identical Point Assignment	Assign the same number of link device points based on the total number of set stations.
Supplementary Setting	Set such as the block data assurance per station setting and the transient settings.

(b) Target setting screen



Click "Target settings" to display the "Target settings" screen.



On "Target settings", set "Network No.", "Station No.", "Target CPU" for specifying "Logical station No.".
Set "Logical station No." within the range of 65 to 239.
The maximum number of "Logical station No." is 175.

(2) CC-Link IE Field Network setting

Item		Description
Network Type		Specify the network type (CC IE Field) whose parameters are to be set.
Start I/O No.		Set the start I/O number in 16-point unit.
Channel No.		Set the channel number (181 to 188) used in MELSEC data link function.
Network No.		Set the network number.
Total Stations		Set the total number of (slave) stations.
Group No.		Set the group number.
Station No.		Set the station number of a module.
Mode		Set the mode.
Network Configuration Setting		–
	Equal Assignment	Assign the number of link device points of all stations equally.
	Identical Point Assignment	Assign the same number of link device points based on the total number of set stations.
	Supplementary Setting	Set the settings such as the link scan mode setting*1, loopback function setting, and block data assurance per station.
Network Operation Setting		Set the settings such as parameter name, data link faulty station setting, and output setting during CPU STOP.
Refresh Parameters		Set the link devices of the CC-Link IE Field Network module, and set the link devices and the range of transfer between internal buffers of C Controller module. (☞ Page 90, (6) in this section)
Target settings		Set the network number, station number and target CPU accessed as logical station number. (☞ Page 86, (1)(b) in this section)
Transient transmission size*2		Set the maximum transmission size (480 words/960 words) when executing the transient transmission via other network numbers with MELSEC data link function.

*1 : Asynchronous only

*2 : When the data that exceeds the maximum size set for "Transient transmission size" is specified in MELSEC data link function, the data is divided and sent. Note that in SEND function of the mdSendEx function, the data that exceeds the maximum size set for "Transient transmission size" cannot be sent.

(3) MELSECNET/H setting

Item	Description
Network Type	Specify the network type (MELSECNET/10 mode or MELSECNET/H mode) whose parameters are to be set.
Start I/O No.	Set the start I/O number.
Channel No.	Set the channel number (51 to 54).
Network No.	Set the network number.*1
Total Stations	Set the total number of (slave) stations.
Group No.	Set the group number.
Mode	Set the mode.
Network Range Assignment	–
Specify I/O Master Station	Set the I/O master station.
Specify Reserved Station	Specify the reserved station.
Equal Assignment	Assign the number of link device points of all stations equally.
Identical Point Assignment	Assign the same number of link device points based on the total number of set stations.
Supplementary Setting	Set the settings such as transient setting and low-speed cyclic setting.
Refresh Parameters	Set refresh parameters.*2 (☞ Page 90, (6) in this section)
Target settings	Set the network number, station number and target CPU accessed as logical station number. (☞ Page 86, (1)(b) in this section)
Transient transmission size*3	Set the maximum transmission size (480 words/960 words) when executing the transient transmission via other network numbers with MELSEC data link function.

*1 : The same network number cannot be set.

*2 : The status of transient transmission error history cannot be set.

*3 : When the data that exceeds the maximum size set for "Transient transmission size" is specified in MELSEC data link function, the data is divided and sent. Note that in SEND function of the mdSendEx function, the data that exceeds the maximum size set for "Transient transmission size" cannot be sent.

(4) CC-Link setting

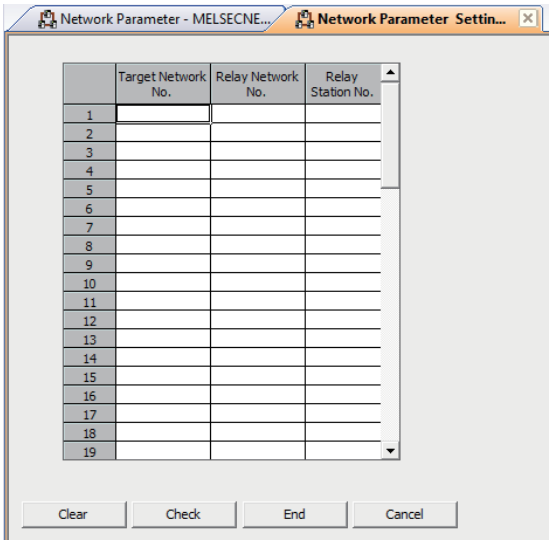
Item	Description
Number of Modules	Set the number of CC-Link modules.
Start I/O No.	Set the start I/O number.
Channel No.	Set the channel number (81 to 88).
Operation Setting	Set the Parameter Name, Data Link Disorder Station, Case of CPU Stop Setting, Number of Exclusive Station, Expanded Cyclic Setting, and Block Data Assurance per Station.
Type	Set the master station or local station.
Master Station Data Link Type	The setting is fixed to "PLC Parameter Auto Start" for the master station.
Mode*1	Set the mode. Select the mode from Ver.1 Mode, Ver.2 Mode, Additional mode, Offline.
Total Module Connected	Set the total number of remote stations, local stations, intelligent device stations, and/or standby master stations connected to the master station.
Retry Count	Set the number of retries in case a communication error occurs.
Automatic Reconnection Station Count	Set the number of remote stations, local stations, intelligent device stations, and/or standby master stations can be returned to the system in one link scan.
Standby Master Station No.	Specify the station number of the standby master station.
CPU Down Select	Specify the data link status when an error occurs in the programmable controller CPU (programmable controller CPU, C Controller module) on the master station.
Delay time Setting	Set the link scan interval delay time.
Station Information Setting	Set the settings such as station type and exclusive counts.
Target settings	Set the station number and target CPU accessed as logical station number. (☞ Page 86, (1)(b) in this section)

*1 : The remote I/O network mode is not available.

(5) Routing parameter setting

Display "Routing parameter setting" screen as shown below by clicking the Routing Parameters button.

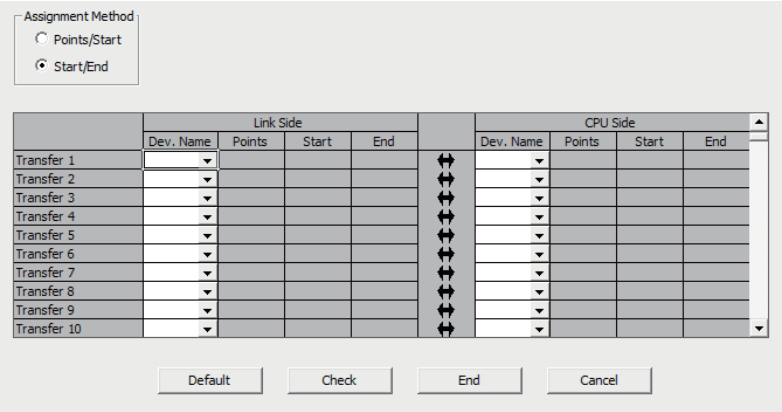
This setting is common to MELSECNET/H, CC-Link IE Controller Network, and CC-Link IE Field Network.



Item	Description
Target Network No.	Set the network number (1 to 239) of other networks.
Relay Network No.	Set the network number (1 to 239) of local network.
Relay Station No.	Set the relay station number (1 to 120) of local network.

(6) Refresh parameter setting

The following screen is displayed when the refresh parameter is specified on the network parameter setting.



Item		Description
Assignment Method		Select from Points/Start or Start/End.
Link Side	Dev.name	Select the device of link side. Applicable devices: • CC-Link IE Controller Network, MELSECNET/H: LX, LY, LB, LW • CC-Link IE Field Network: RX, RY, RWw, RWr
CPU Side	Dev.name	Select the device of CPU side. Applicable devices: B, W

5.3 Setting Intelligent Function Module Parameter

This section explains how to set the intelligent function module parameters.

Screen display

Operations from the menu and the project view are available.

- **"Project" menu ⇒ "Intelligent Function Module"**
- **Project view ⇒ "Intelligent Function Module"**

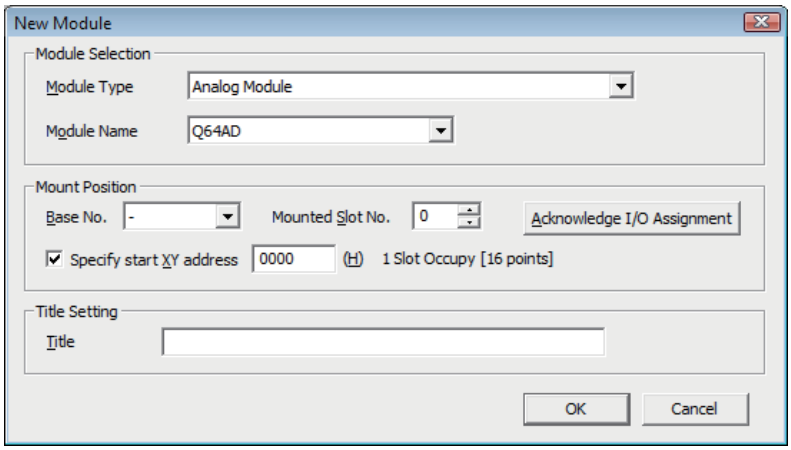
(1) Operations from the menu of "Intelligent Function Module"

(a) Adding modules

Add the intelligent function module.

Screen display

- **Select [Project] ⇒ [Intelligent Function Module] ⇒ [Add New Module].**



(b) Deleting modules

Delete an intelligent function module.

Operating procedure

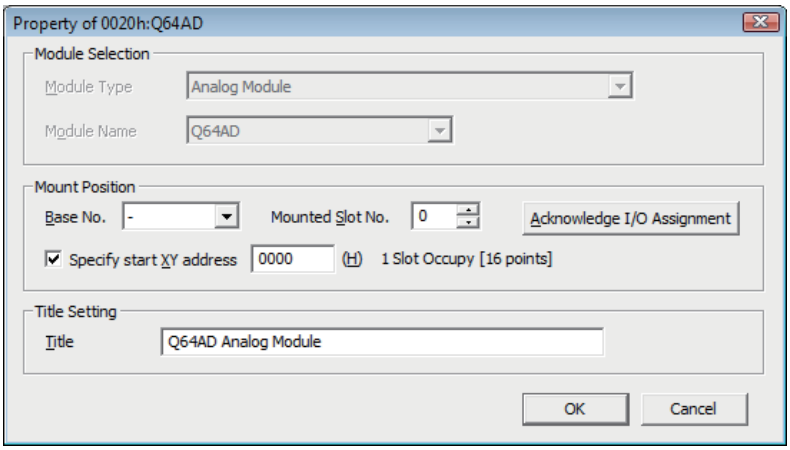
1. **Select the intelligent function module to be deleted from the Project view. (☞ Page 38, Section 4.2.1 (1))**
2. **Select [Project] ⇒ [Intelligent Function Module] ⇒ [Delete Module].**
   The selected intelligent function module is deleted.

(c) Property

Set the properties of the intelligent function module.

Screen display

- **Select [Project] ⇒ [Intelligent Function Module] ⇒ [Property].**

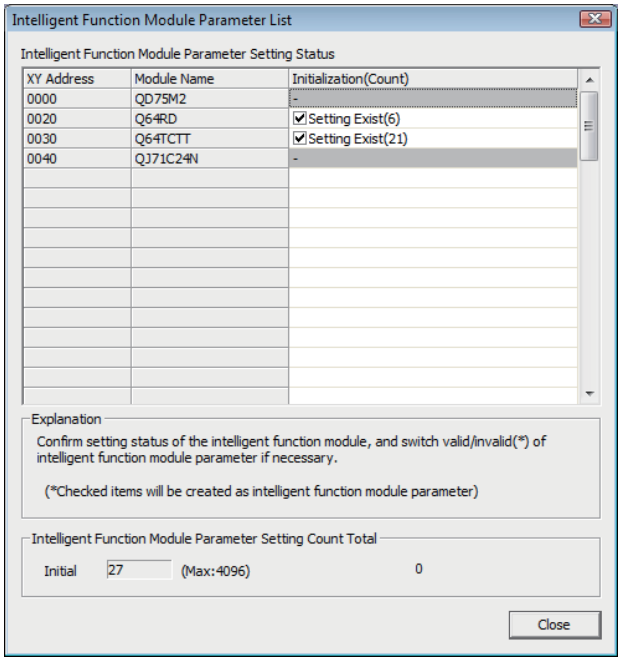


(d) Intelligent function module parameter list

Display the list of parameter setting status of all intelligent function modules.

Screen display

- **Select [Project] ⇒ [Intelligent Function Module] ⇒ [Intelligent Function Module Parameter List].**



(2) Operations from the project view

(a) Operations from the menu displayed by right-clicking "Intelligent Function Module".

Item	Description
New Module	Add an intelligent function module.
Paste	Paste the copied data of the intelligent function module.
Intelligent Function Module Parameter List	Display the list of parameter setting status of all intelligent function modules.
Read GX Configurator-QP Data	Read the data from the parameter file created in GX Configurator-QP.
Property	Check the modified date of parameters.

(b) Operations from the menu displayed by right-clicking each module.

Item	Description
Copy	Copy the intelligent function module data.
Delete	Delete the intelligent function module.
Register to Intelligent Function Module Monitor	Open the intelligent function module monitor window of selected module.
Property	Set the properties of the intelligent function module.

Point

- For settings of intelligent function module parameter, refer to the following manual.
  User's manual of each module to be used
- The auto refresh function of intelligent function module is not supported by C Controller module.
- The intelligent function modules without setting items cannot be added in Setting/monitoring tools for the C Controller module.
- When setting MODBUS® Interface Module, consider the terms displayed on the screen as the following terms.

The term displayed on the screen	Term
PLC	CPU
PLC CPU	C Controller module

CHAPTER 6 SETTING C CONTROLLER MODULE CONNECTION DESTINATION

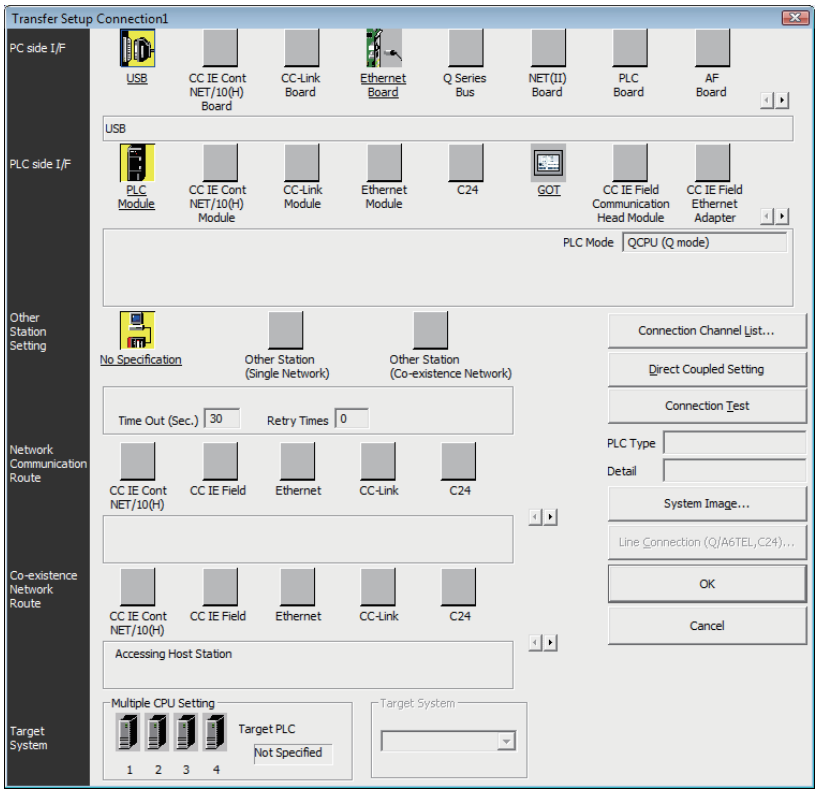
This chapter explains how to set a connection destination for accessing a C Controller module from Setting/monitoring tools for the C Controller module.

6.1 Setting Connection Destinations

This section explains how to set communication routes, including the interfaces both on the personal computer and programmable controller CPU and the routing networks, for accessing a C Controller module.
Multiple connection destinations can be set in Setting/monitoring tools for the C Controller module. To set multiple connection destinations, create data for each connection destination on the "New Data" screen. (☞ Page 97, Section 6.1.2)

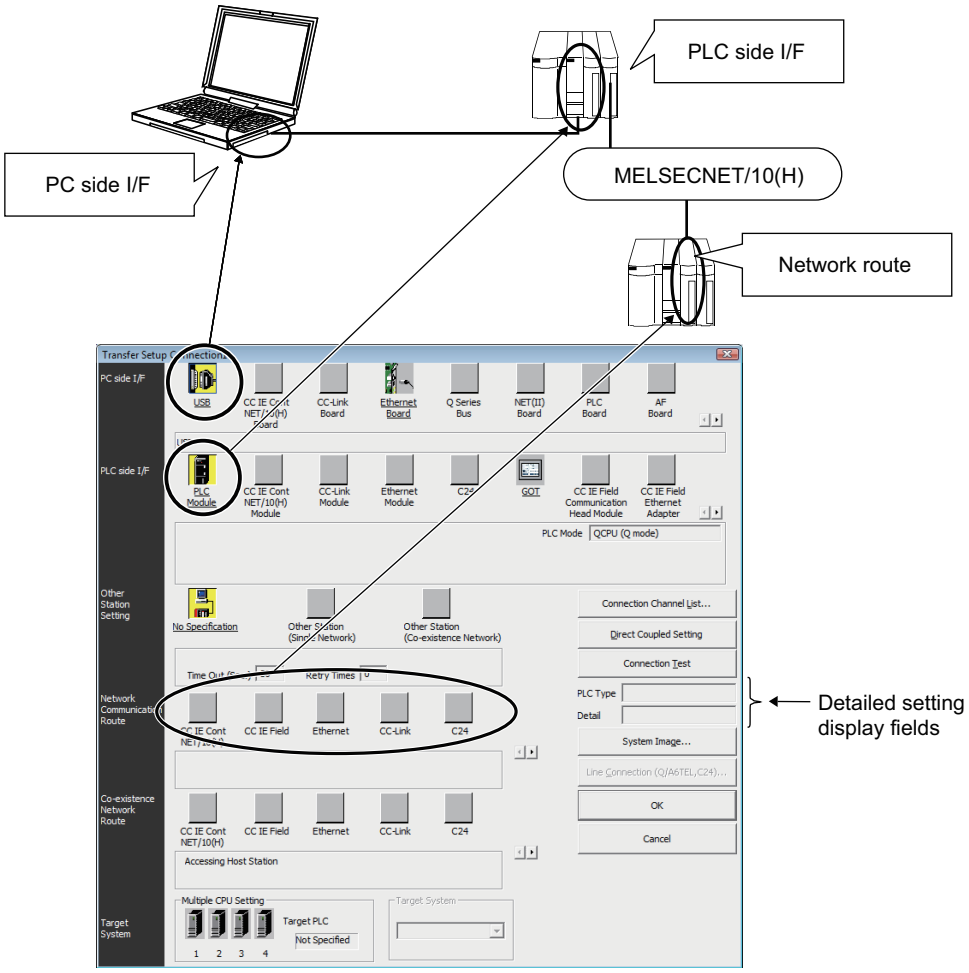
Screen display

- **Select Navigation window ⇒ Connection Destination view ⇒ "(connection destination data name)".**



6.1.1 Transfer setup screen

Interfaces are displayed on the "Transfer Setup" screen as shown below and detailed settings of each interface can be configured.



Detailed settings can be set for underlined items on the screen. Double-click these items to set the details.
The items whose icons are displayed in yellow are items that have been already set.

- **PC side I/F**
  Set the interface of the personal computer.
- **PLC side I/F**
  Set the interface of the C Controller module connected to the personal computer.
- **Other Station Setting**

Item	Description
No Specification	Specify this to access the C Controller module directly connected to a personal computer.

- **Target system**
  Specify the access target in the multiple CPU system
  Only "No Specification" can be selected for "Other Station Setting".

Screen button

- Connection Channel List...

  Displays the "Connection Channel List" screen.
  The connection destination can be set while checking network routes on the "Connection Channel List" screen.
  Since the route selected on the "Connection Channel List" screen is set automatically on the "Transfer Setup" screen, the setting is easy even for a complex system.
  (☞ Page 96, (1) in this section)

- Direct Coupled Setting

  Changes the connection destination setting for the setting that connects a personal computer directly to the C Controller module to be accessed.
  This function is useful to change the station specification from another station to host station.

- Connection Test

  Tests if the target C Controller module set on the "Transfer Setup" screen can be accessed normally.
  If accessed normally, the model of the target C Controller module is displayed on the "PLC Type" field, one of the detailed setting display fields. In addition, for the multiple CPU system, the CPU number of the connection destination is displayed on the "Detail" field.

- System Image...

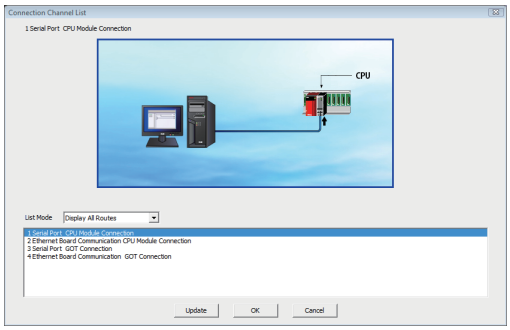
  Displays the set connection channel in an illustration.

(1) Connection channel list

Operating procedure

1. **Select a route on the "Connection Channel List" screen.**
2. **Click the** Update / OK **button.**

   The selected route is displayed on the "Transfer Setup" screen. Set the settings such as network number and station number depending on the access target.



• "List mode"

List mode	Description
Display All Routes	Display all routes supported by Setting/monitoring tools for the C Controller module.
Display Selected Routes	Specify the interfaces for "PC side I/F" and "PLC side I/F" on the "Transfer Setup" screen and select "Display Selected Routes" to display only accessible communication routes.

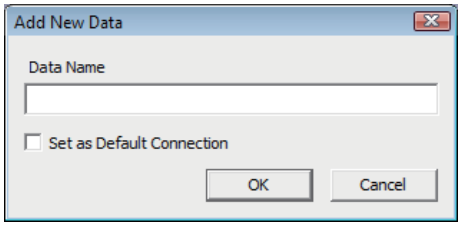
6.1.2 Creating connections

Create a new connection.

Select Navigation window ⇒ Connection Destination view, and perform the following operation.

Screen display

- **Select [Project] ⇒ [Object] ⇒ [New] ( ).**



Operating procedure

1. **Set the items on the screen.**

Item	Description
Data Name	Enter the name of the connection to be created.
Set as Default Connection	Select this to specify the connection destination to be created for regular use.

2. **Click the OK button.**

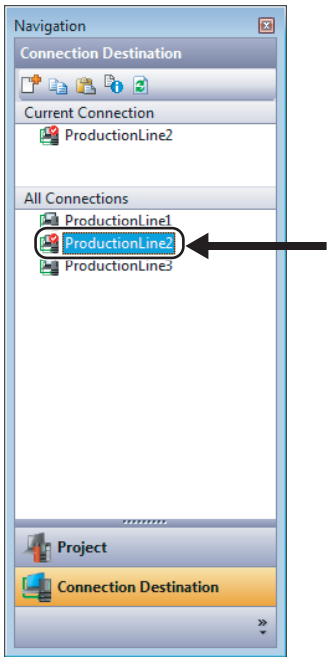
The created connection target is added to "All Connections" in the Connection Destination view.

6.1.3 Specifying connection destination for regular use

Specify the connection destination for regular use when multiple connection destinations are set.

Operating procedure

1. **Select the connection destination data to be specified for regular use from the "All Connections" on the Connection Destination view.**
2. **Select [Project] ⇒ [Object] ⇒ [Set as Default Connection].**
   The name of the selected connection destination data is set as the connection destination for regular use, and displayed on "Current Connection".



is appended to the icon of data specified as the connection destination for regular use.

Point

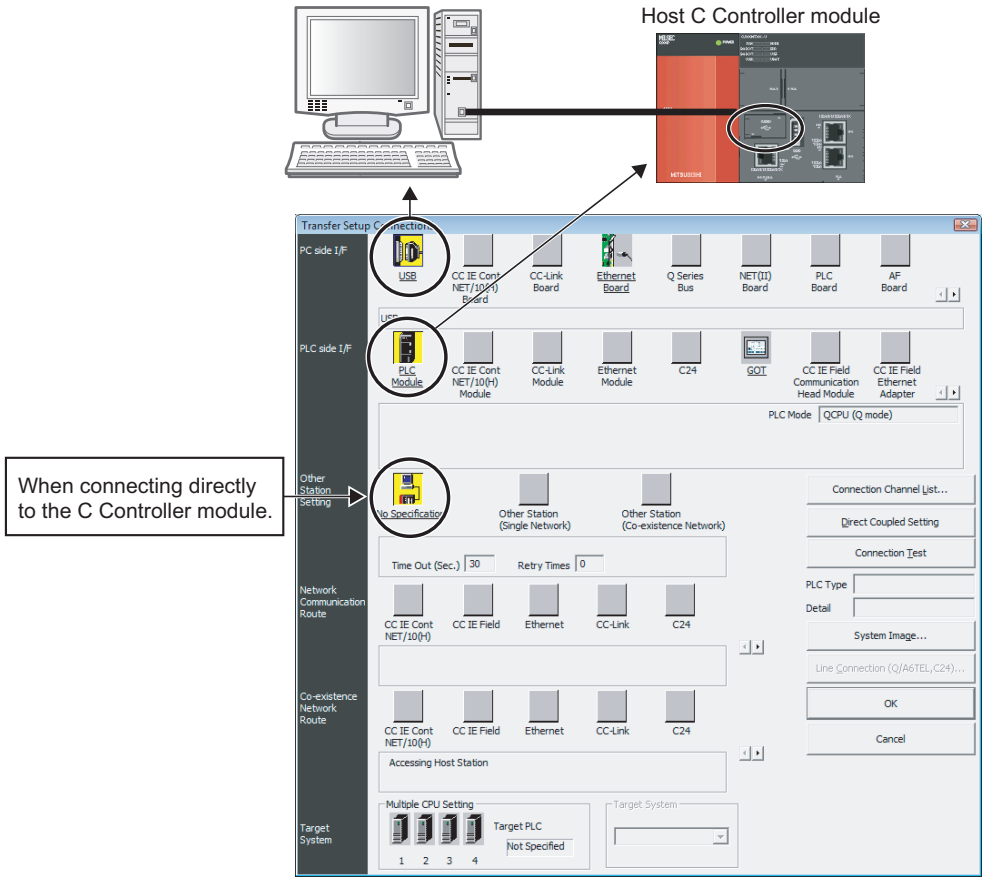
- Connection destination setting
  The connection destination data can also be specified for regular use by dragging and dropping it from "All Connections" to "Current Connection".

6.2 Accessing C Controller Module Directly

This section explains how to access the C Controller module directly connected to a personal computer.

6.2.1 Connecting with USB cable

The following explains the setting for accessing the host C Controller module from Setting/monitoring tools for the C Controller module with USB cable.

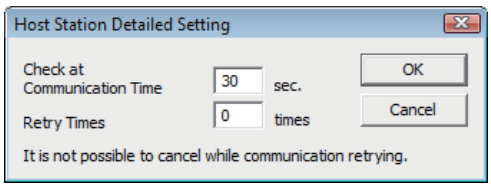


Operating procedure

1. **Set "Serial USB" for "PC side I/F" on the "Transfer Setup" screen.**

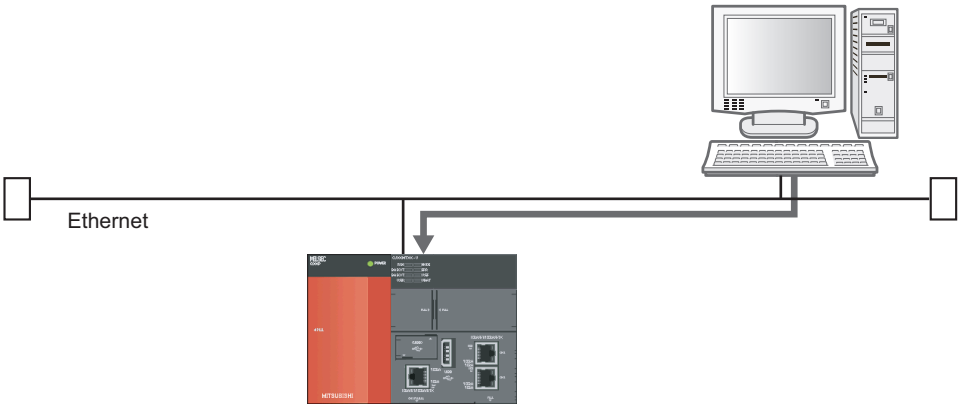
2. **Set "PLC Module" for "PLC side I/F" on the "Transfer Setup" screen.**

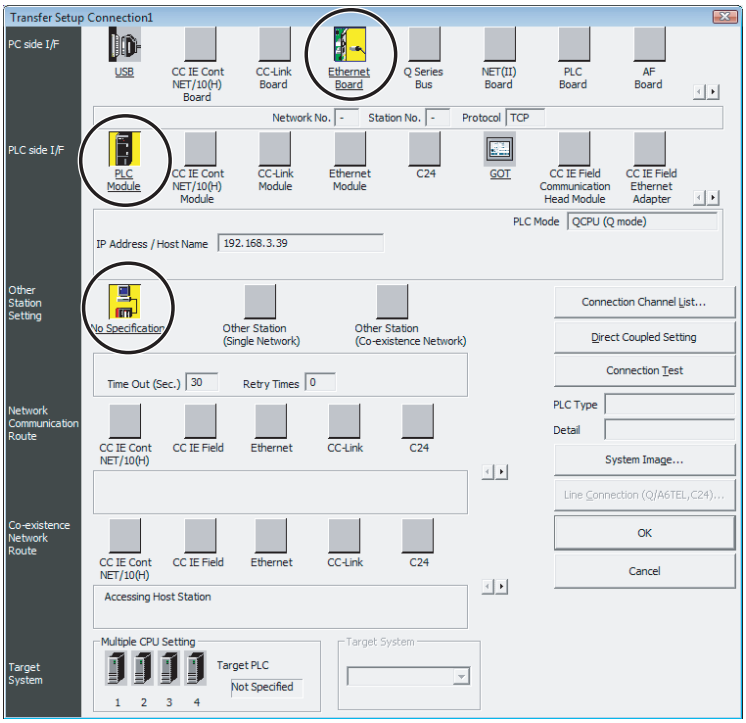
3. **Double-click the "No Specification" icon for "Other Station Setting" on the "Transfer Setup" screen to display the screen as shown on the right.**
   Set "Check at communication time" and "Retry times" as necessary.
   Click the OK button.



6.2.2 Accessing by Ethernet

Access the C Controller module from Setting/monitoring tools for the C Controller module by Ethernet.

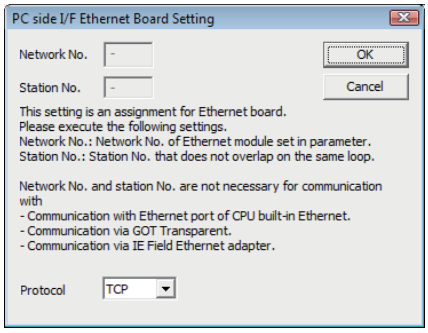




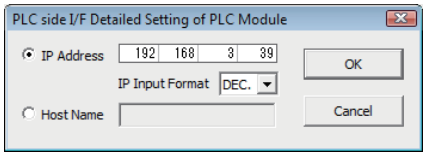
Operating procedure

1. **Double-click the "Ethernet Board" icon for "PC side I/F" on the "Transfer Setup" screen to display the screen as shown on the right.**

Select the protocol, and click the OK button.

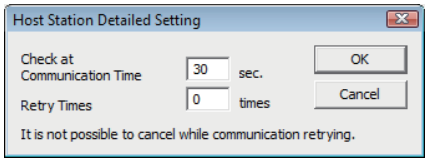

PC side I/F Ethernet Board Setting
Network No.
Station No.
OK
Cancel
This setting is an assignment for Ethernet board.
Please execute the following settings.
Network No.: Network No. of Ethernet module set in parameter.
Station No.: Station No. that does not overlap on the same loop.
Network No. and station No. are not necessary for communication with
- Communication with Ethernet port of CPU built-in Ethernet.
- Communication via GOT Transparent.
- Communication via IE Field Ethernet adapter.
Protocol
TCP

2. **Double-click the "PLC Module" icon for "PLC side I/F" on the "Transfer Setup" screen to display the screen as shown on the right.**
Set the IP address or the host name, and click the OK button.



3. **Double-click the "No Specification" icon for "Other Station Setting" on the "Transfer Setup" screen to display the screen as shown on the right.**
Set "Check at communication time" and "Retry times" as necessary.

Click the OK button.



6.3 Accessing C Controller Module in Multiple CPU System

This section explains how to access the C Controller module (host CPU) directly connected to the personal computer or other CPUs in the multiple CPU system.

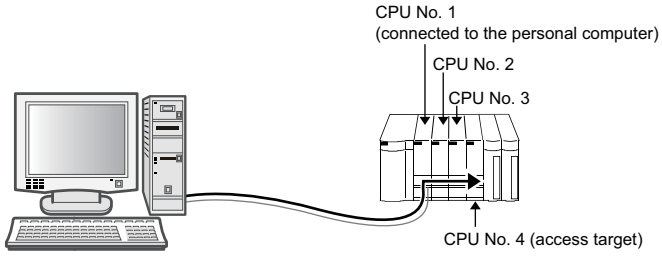
(1) Accessing host CPU

The setting for accessing the host CPU is the same as that for accessing the C Controller module on the host station. (☞ Page 99, Section 6.2)

(2) Accessing other CPUs

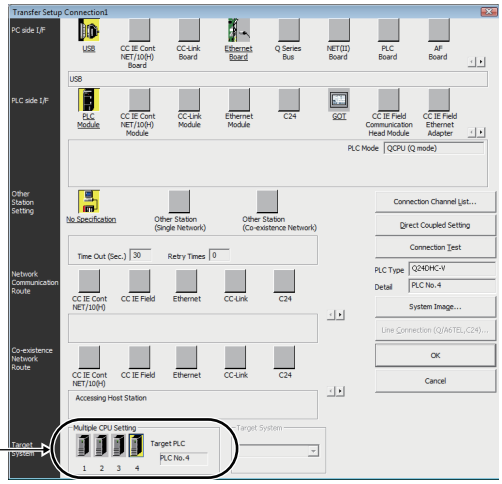
In the multiple CPU system, specify the CPU number of the access target at "Multiple CPU Setting" when accessing a C Controller module that is not directly connected to the personal computer.

The following shows a setting example when accessing the CPU No.4 by connecting the personal computer to the CPU No.1.



Operating procedure

1. **Set "PC side I/F" and "PLC side I/F".**
   (☞ Page 95, Section 6.1.1)
2. **Set the access target CPU number at "Multiple CPU Setting" for "Target System".**



Specify the CPU No. 4.

6.4 Setting for Access via GOT (GOT Transparent Function)

This section explains how to access the C Controller module from Setting/monitoring tools for the C Controller module via GOT using the GOT transparent function.

Point

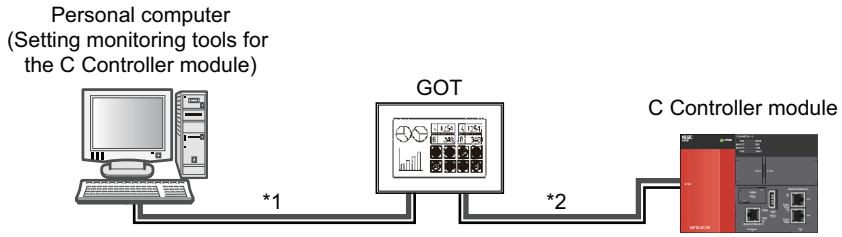
- Considerations on executing online operations from Setting/monitoring tools for the C Controller module
  Do not execute online operations from GT Designer3 to GOT (such as downloading project data) when online operations are being executed from Setting/monitoring tools for the C Controller module to the C Controller module using the GOT transparent function.
- When GOT does not monitor normally
  The GOT transparent function cannot be used in the following cases.
  - When GOT does not monitor normally due to C Controller module errors or communication errors between the C Controller module and GOT
  - During the period of time between turning ON the C Controller module or GOT and the start of GOT monitoring
  - During the period of time between resetting the C Controller module or GOT and the start of GOT monitoring

Check the following items if GOT does not monitor normally.

Item	Description
Does the C Controller module operates normally?	Refer to the user's manual of the C Controller module used.
Is the C Controller module connected to GOT normally?	Refer to the user's manual of the GOT to be used. GOT1000 Series Connection Manual

6.4.1 Accessing C Controller module via GOT

Access the C Controller module via GOT.



*1 : The following table shows the connection between the personal computer and GOT.

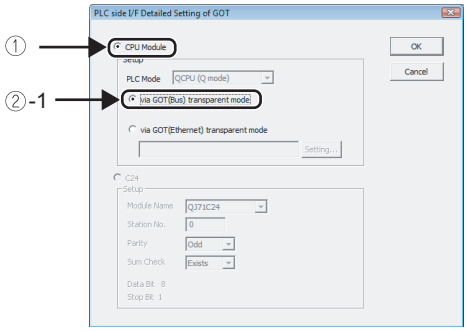
Connection	GOT		
	GOT1000 series	GOT-A900 series	GOT-F900 series
RS-232 connection	○	–	–
USB connection	○	–	–
Ethernet connection	○	–	–

○: Connectable

*2 : For cables connecting GOT with the C Controller module, GOT settings, and considerations, refer to the manual of the GOT connected.
GOT1000 Series Connection Manual

Operating procedure

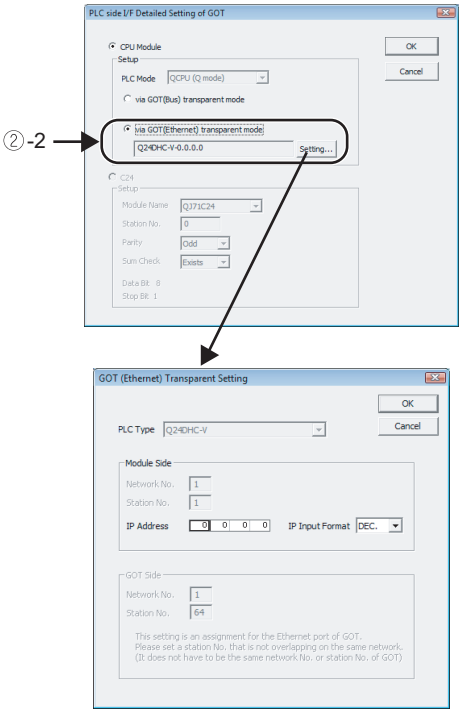
1. **Double-click the "GOT" icon for "PLC side I/F" on the "Transfer Setup" screen to display the "PLC side I/F Detailed Setting of GOT" screen.**



① Select "PLC Module".
Set the following setting according to the setting method between a GOT and a C Controller module when "Serial USB" is set for "PC side I/F".

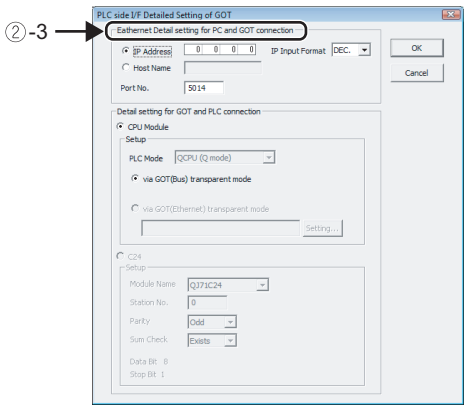
②-1 Bus connection:
Select "via GOT (Bus) transparent mode" for "Setup".

②-2 Ethernet connection:
Select "via GOT (Ethernet) transparent mode" for "Setup", click the Setting... button, and set the settings for "Module Side" on the "GOT (Ethernet) Transparent Setting" screen.



Set the following setting when "Ethernet Board" is set for "PC side I/F".

②-3 Ethernet connection:
Set the settings for "Ethernet Detail setting for PC and GOT connection".



2. **Set "Other Station Setting" depending on a route to the connection destination.**
(☞ Page 95, Section 6.1.1)

Point

- A C Controller module and a GOT cannot be connected with Ethernet.

6.5 Considerations of Communication with C Controller Module

This section explains the considerations of communication with the C Controller module.
Refer to POINT and Restrictions described in each section as well as the descriptions in this section.

(1) Considerations of communication with the C Controller module using a USB cable

(a) Connecting and disconnecting a USB cable, resetting the C Controller module, and turning the power ON/OFF

A communication error may occur and operation may not be recovered if connecting and disconnecting a USB cable, resetting the C Controller module, or turning the power ON/OFF is performed frequently during communication with the C Controller module.

Be sure to set Setting/monitoring tools for the C Controller module to offline[*1] as much as possible during these operations.

When operation is not recovered from an error, remove the USB cable. Then, connect it again after five or more seconds. (Even after this operation, an error may occur at initial communication. However, communication will be successful after that.)

*1 : The offline indicates the status other than indicated below.
- Write to CCPU, Read from CCPU, Monitor, and CCPU diagnostics

(b) Combination of personal computers and USB cables

A communication error may occur depending on the combination of personal computers and USB cables.
If an error occurs, take appropriate actions according to the message displayed on the screen.

(2) Other considerations

(a) Resume function, suspend setting, power saving function, and standby mode of the personal computer

A communication error may occur during communication with the C Controller module when the resume function, suspend function, power saving function, or standby mode is set to the personal computer.
Disable these settings for communication with the programmable controller CPU.

(b) Communication errors for Setting/monitoring tools for the C Controller module

When the line is busy, the occurrence of communication error (timeout error) for Setting/monitoring tools for the C Controller module increases.
When the error occurs, reset the connection destination.

CHAPTER 7 WRITING/READING/VERIFYING DELETING PROJECT

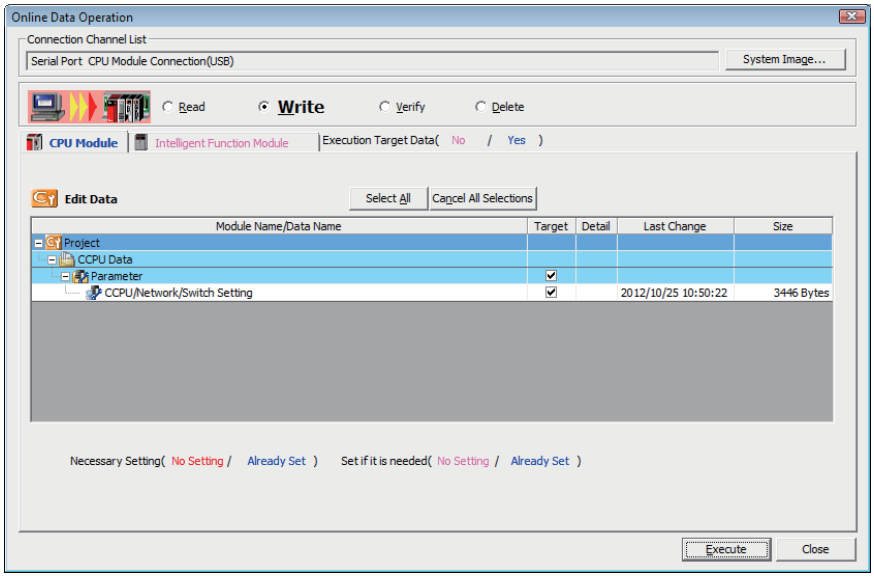
This chapter explains the project data operations (write/read/verify/delete) performed on a C Controller module.

7.1 Writing or Reading Project to/from C Controller Module

Write project data to the C Controller module, or read data from the C Controller module to the project.

Screen display

- **Select [Online] ⇒ [Write to CCPU]/[Read from CCPU] ⇒ <<CPU Module>>.**



Operating procedure

1. **Set the items on the screen.**

Item		Description
Connection Channel List		Display the information of the connection destination setting.
Target module tab		Switch the setting target module. Characters on the tab are displayed in blue when data to be written/read exist.
	CPU Module	Set the data to be written/read.
	Intelligent Function Module	
File list		Select the data to be written/read.

2. **Click the** Execute **button.**

The data are written to/read from the C Controller module.

Screen button

- System Image...

  Displays the "System Image" screen.
  The connection channel can be checked graphically.
- Select All

  Selects all data displayed in the list.
- Cancel All Selections

  Cancels the selection status of all data selected in the list.

Point

- Writing data to C Controller module
  The written data (parameters) are validated when power cycling or after resetting the C Controller module.

7.2 Writing/Reading Intelligent Function Module Data

This section explains how to write intelligent function module data to a C Controller module or intelligent function module buffer memory/flash ROM.
Intelligent function module data includes intelligent function module parameters to be written to a C Controller module as a parameter file, and data whose values are written directly to intelligent function module buffer memory/flash ROM.

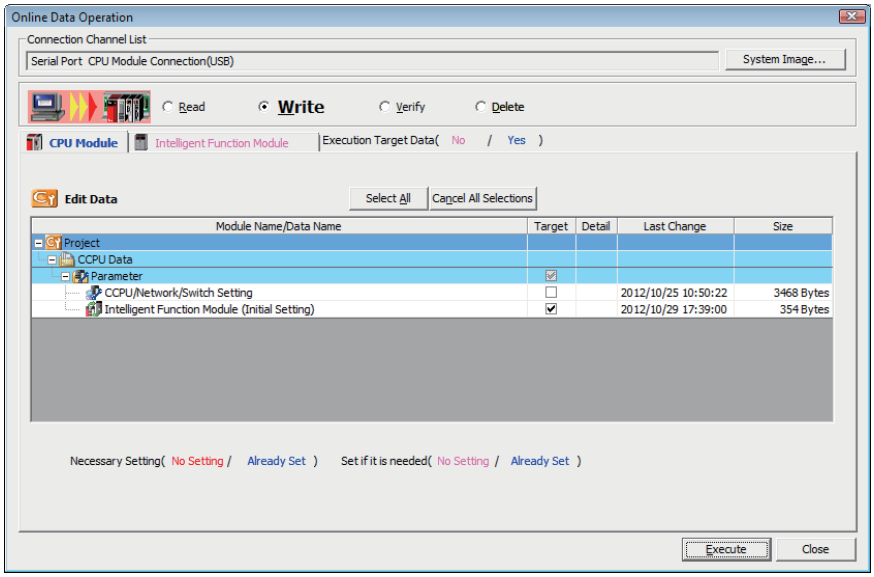
Remark

- For details of intelligent function module data, refer to the following manuals.
  GX Works2 Version 1 Operating Manual (Intelligent Function Module)
  User's Manual to be used

(1) Writing/reading data as parameter files to/from C Controller module

Screen display

- **Select [Online] ⇒ [Write to CCPU]/[Read from CCPU] ⇒ <<CPU Module>>.**



Operating procedure

1. **Select "Intelligent Function Module (Initial Setting)" from the file list.**
   For the items and buttons on the screen, refer to the following section.
   ☞ Page 106, Section 7.1
2. **Click the [Execute] button.**
   Data are written to/read from the C Controller module.

(2) Writing/reading data to/from intelligent function module buffer memory/flash ROM

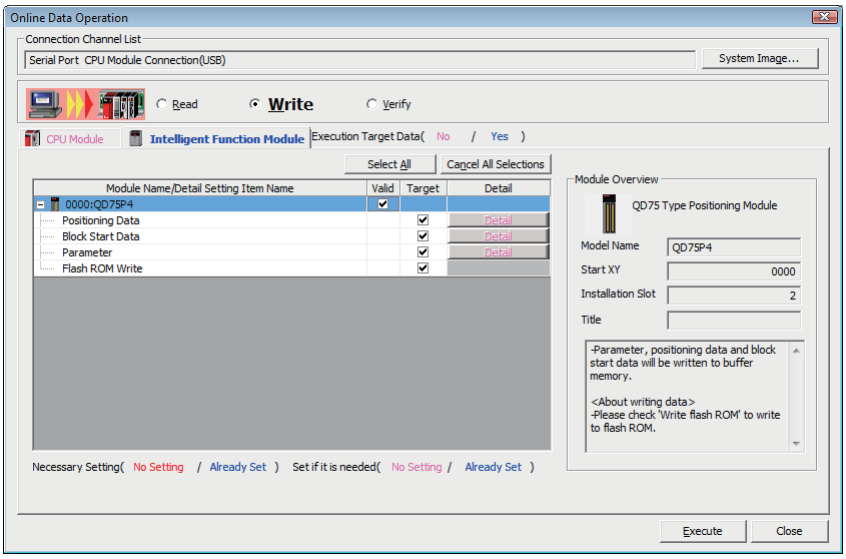
Write/read the set intelligent function module data to/from the buffer memory/flash ROM of the intelligent function module via a C Controller module.

Use the operation for changing the data temporarily during debugging.

If a module does not have initial settings for intelligent function module parameters, this function can directly write data such as initial values to the intelligent function module buffer memory/flash ROM.

Screen display

- **Select [Online] ⇒ [Write to CCPU]/[Read from CCPU] ⇒ <<Intelligent Function Module>>.**



The items in Detail may differ depending on the module.

Operating procedure

1. **Select "Valid" for write/read target module and "Target" for each item.**

   Set details such as a write/read range and write target by clicking the Detail button.

   For the items and buttons on the screen, refer to the following section.

   ☞ Page 106, Section 7.1

2. **Click the Execute button.**

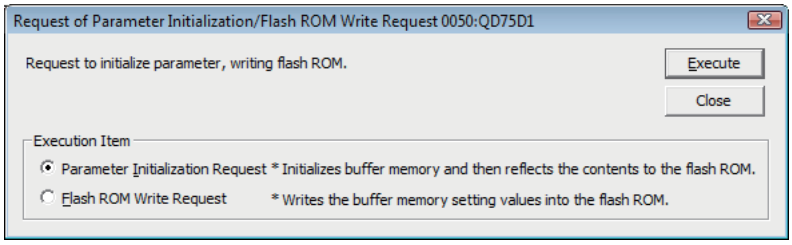
   The set data are written to/read from the buffer memory/flash ROM of the intelligent function module.

(3) Requesting parameter initialization and flash ROM write on QD75 positioning module

Request a buffer memory data write from the QD75 positioning module to the flash ROM. Buffer memory data can be initialized and applied to the flash ROM.
Parameters, servo parameters, positioning data, and block start data (including condition data) of all ranges are written in batch from the buffer memory to the flash ROM.

Screen display

- **Select [Tool] ⇒ [Request of Parameter Initialization/Flash ROM Write Request].**


Request of Parameter Initialization/Flash ROM Write Request 0050:QD75D1
Request to initialize parameter, writing flash ROM.
Execute
Close
Execution Item
Parameter Initialization Request * Initializes buffer memory and then reflects the contents to the flash ROM.
Flash ROM Write Request * Writes the buffer memory setting values into the flash ROM.

Operating procedure

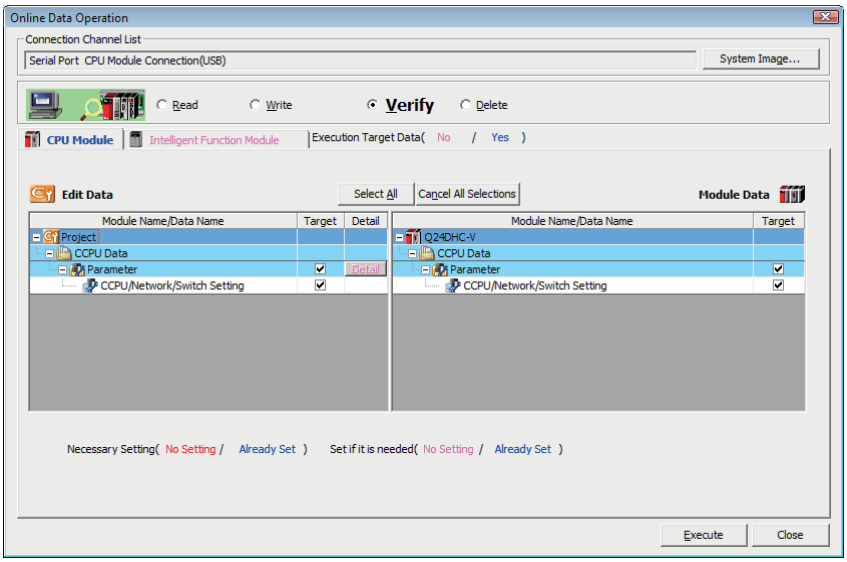
1. **Select an item under "Execution Item".**
2. **Click the** Execute **button.**
   The request of the selected item is executed.

7.3 Verifying Data on C Controller Module against Data on Personal Computer

This section explains how to verify the open project against the data on the C Controller module.
The verification function is used to compare the content of two projects or to locate program changes.

Screen display

- **Select [Online] ⇒ [Verify with CCPU] ⇒ <<CPU Module>>.**



Operating procedure

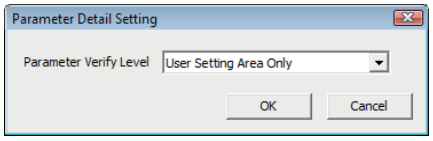
1. **Select data to verify from the file list.**
   For the items and buttons on the screen, refer to the following section.
   ☞ Page 106, Section 7.1
2. **Click the** Execute **button.**
   The data are verified.

Point

The following explains the verification levels that can be selected for verifying parameters.

Screen display

- **Select the parameter and click the** Detail **button.**



The following table shows the setting items for parameter verification.

Item	Description
User Setting Area Only	Verify only the parameter area set by the user.
All Areas	Verify all area including the parameter area set by the system.

Operating procedure

- **When a mismatched point is detected in the verification**

  The following message is displayed.

  Take corrective action according to the message.

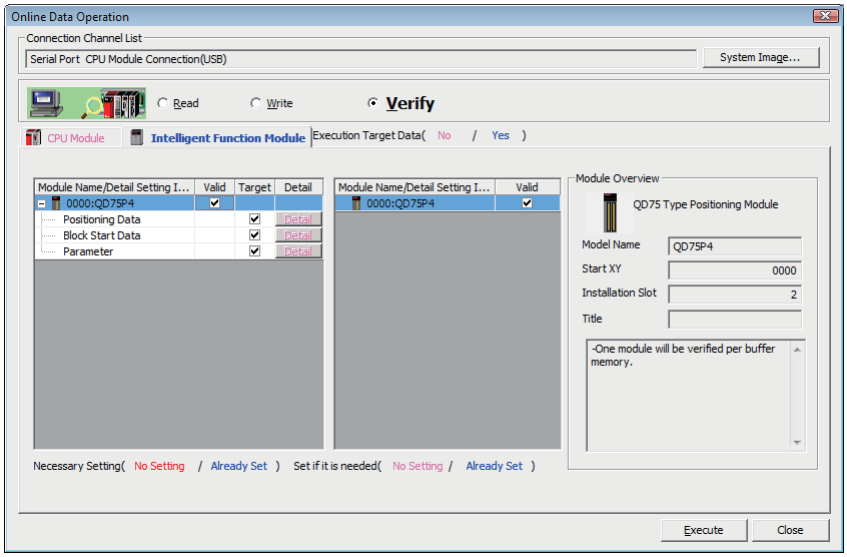
Message	Corrective action
The header information of the parameter block is inconsistent.	A mismatch exists in area other than the user setting area. Take one of the following corrective actions. • Reset the mismatch part of the parameter For block number (parameter number), refer to the following manual. MELSEC-Q C Controller Module User's Manual • Rewrite the parameters having been written to the C Controller module. If the mismatch is not resolved, please consult your local Mitsubishi service center or representative, explaining the details of the problem.

7.4 Verifying Data on Intelligent Function Module against Data on Personal Computer

This section explains how to verify the open project against the data on the QD75 positioning module.
The verification function is used to compare the content of two projects or to locate program changes on the QD75 positioning module.

Screen display

- **Select [Online] ⇒ [Verify with CCPU] ⇒ <<Intelligent Function Module>>.**



Operating procedure

1. **Select data to verify from the file list.**

   For the items and buttons on the screen, refer to the following section.

   ☞ Page 106, Section 7.1

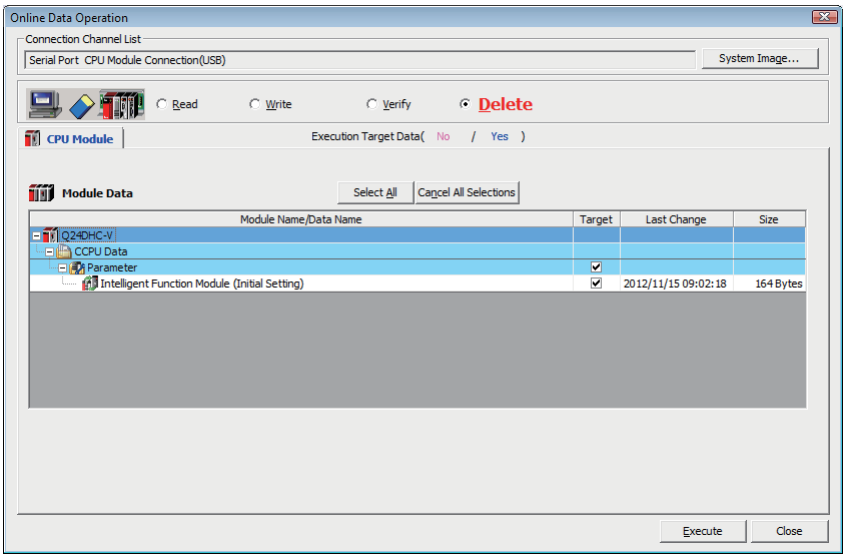
2. **Click the** Execute **button.**

   The data are verified.

7.5 Deleting C Controller Module Data

This section explains how to delete data on the C Controller module.

- **Select [Online] ⇒ [Delete CCPU Data].**



Operating procedure

1. **Select the data to delete from the file list.**
   For the items on the screen, refer to the following section.
   ☞ Page 106, Section 7.1
2. **Click the** Execute **button.**
   The selected data are deleted.

Point

Since "CCPU/Network/Switch Setting" cannot be deleted, this item is not displayed on the file list.

CHAPTER 8 MONITORING

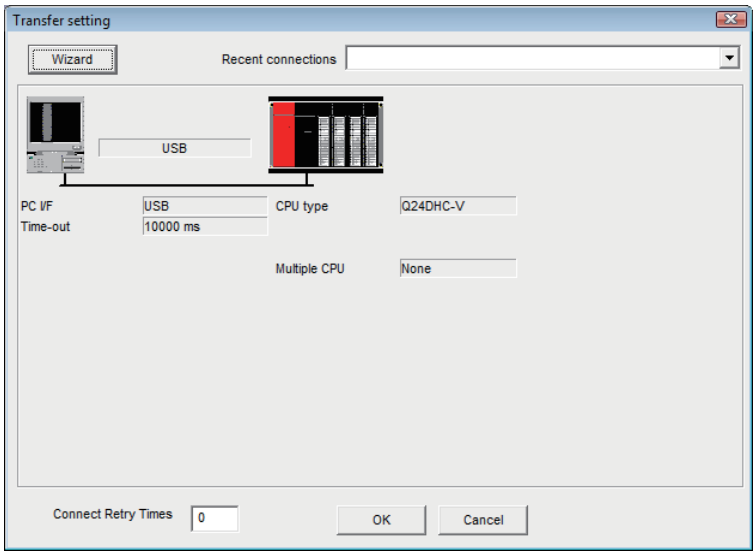
This chapter explains how to monitor the programmable controller CPU and the C Controller module which is connected to the personal computer.

8.1 Setting Connection Destinations

The connection destination needs to be set before executing the device monitoring (☞ Page 116, Section 8.2) if it is not set with Setting/monitoring tools for the C Controller module.

Operating procedure

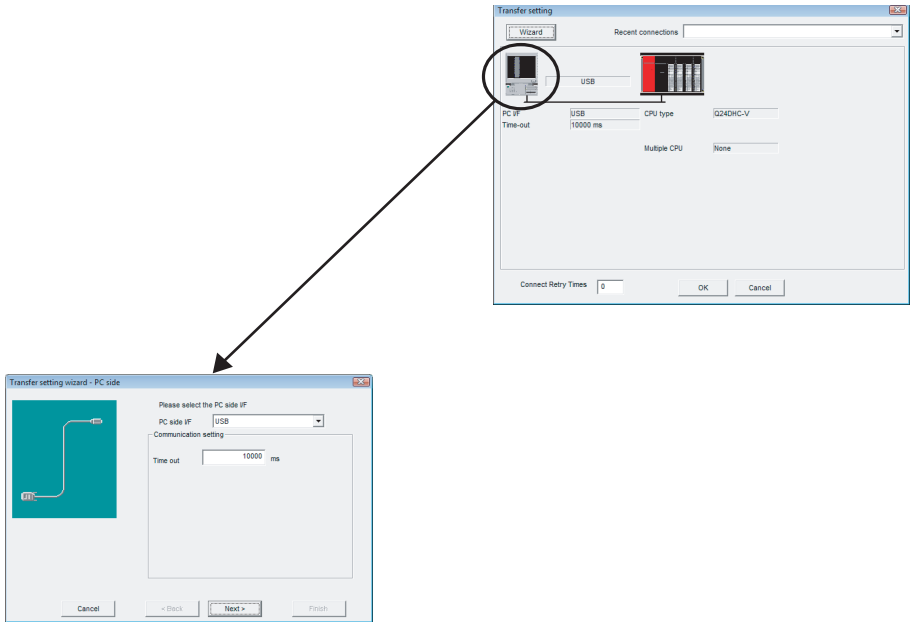
1. **Select the following function without setting the connection destination.**
   Select [Online] ⇒ [Device monitor].
2. **The "Transfer setting" screen is displayed.**



3. **To change the current connection destination, click the** Wizard **button, and set "PC side I/F", "PLC side I/F", and "Network Communication Route" by following the displayed instruction.**
4. **Click the** OK **button.**

Point

- Logical station numbers
  Logical station numbers cannot be specified.
- Changing connection destination without using the Wizard function
  The setting screen is displayed by clicking the illustration of personal computer or module on the "Transfer setting wizard" screen.



- When the CPU type specified on the "Transfer setting" screen is different from the actually-connected CPU type
  The CPU type displayed on the column for the device monitoring target CPU is different from the actually-connected CPU type; however, the monitoring can be performed if the CPU series is the same.

8.2 Monitoring Devices and Buffer Memory

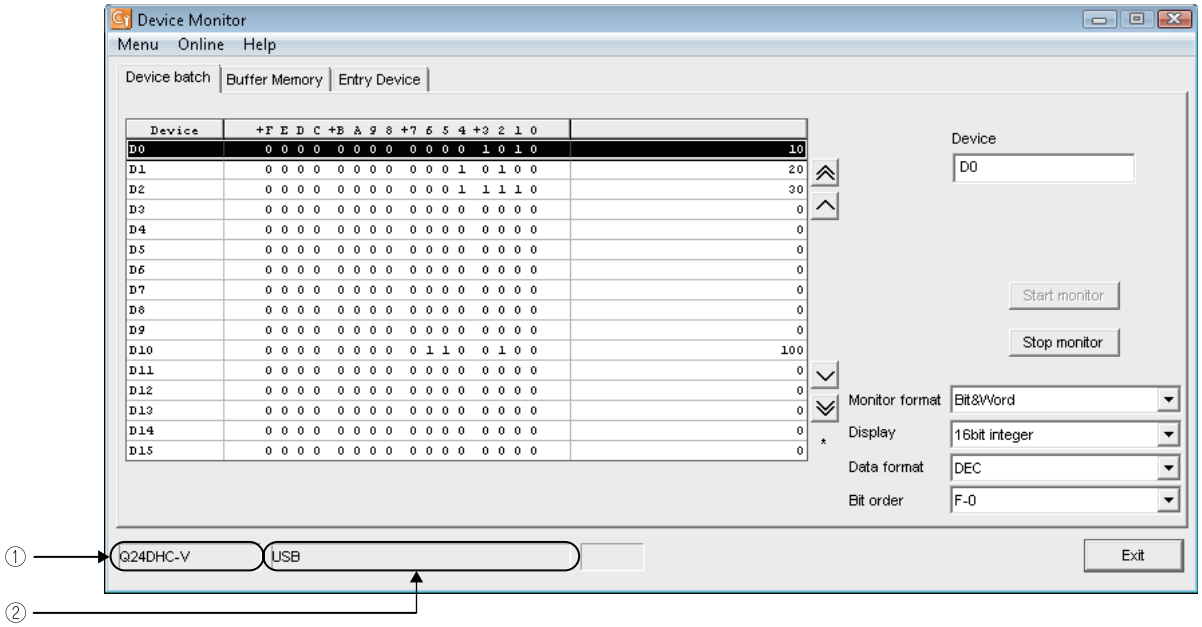
This section explains how to monitor devices.

Screen display

- **Select [Online] ⇒ [Device monitor].**

Screen button

- Start monitor / Stop monitor
  Starts/stops the monitoring.



Display contents

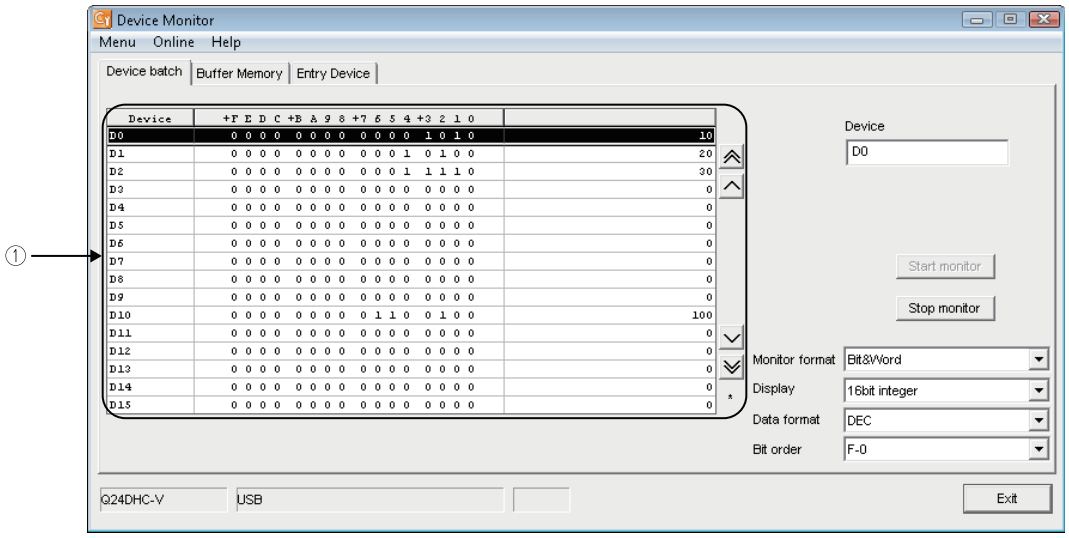
Item	Description
① (Target CPU name)	Display the CPU name of the communication target specified on the "Transfer setting" screen. (☞ Page 95, Section 6.1.1 or ☞ Page 114, Section 8.1)
② (Communication route information)	Display such information as the network type, network number, start I/O address, and station number.

Point

In order to monitor link devices (RX, RY, RWr, RWw), link special relays (SB), and link special registers (SW) stored on the buffer memory of CC-Link module, specify the address of the buffer memory on the <<Buffer Memory>> tab.
(☞ Page 118, (2) in this section)
For the list of buffer memory of CC-Link module, refer to the following manual.
📖 MELSEC-Q CC-Link System Master/Local Module User's Manual

(1) Operations on device batch screen

Monitor only the specified one type of devices.



Operating procedure

1. **Set the items on the screen.**

Item	Description
Device	Enter the device name to be batch-monitored.
Monitor format	Set the monitor format. Bit & Word: Set the monitor screen to the bit and word display. Bit: Set the monitor screen to the bit display only. Word: Set the monitor screen to the word display only.
Display	Set the display format of the device values to be displayed when the monitor format is "Bit & Word" or "Word".
Data format	Set the radix (decimal/hexadecimal) when the display format is "16 bit integer" or "32 bit integer".
Bit order	Set the order in which the bit devices being monitored are arranged. F-0: Arranged in order of F, E, ... 1, 0 from left to right. 0-F: Arranged in order of 0, 1, ... E, F from left to right.

Display contents

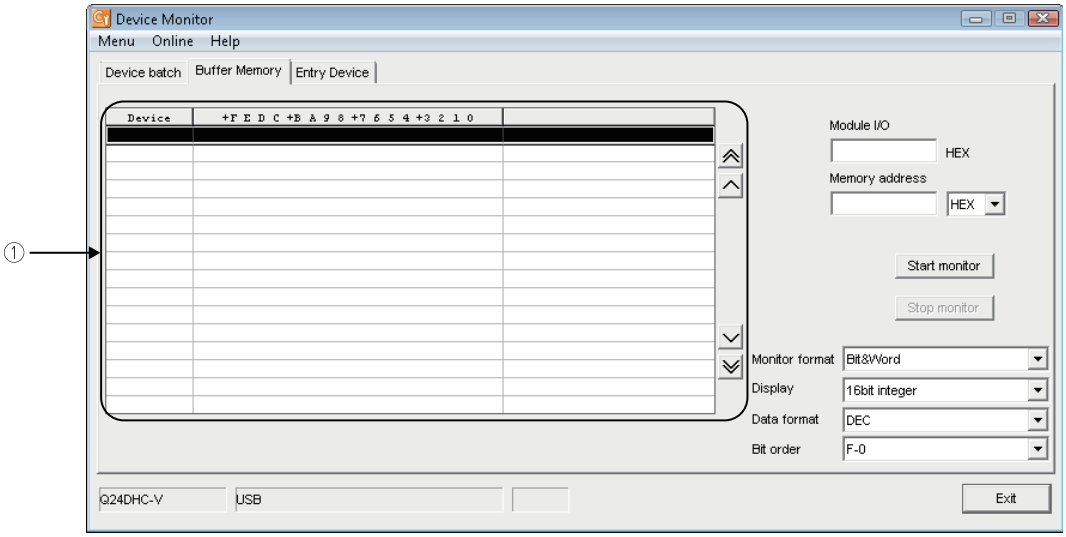
Item	Description
① (Monitor screen)	Display the device status. Double-click the device name to display the "Write to Device" screen. (☞ Page 121, (4) in this section)

Point

- For the bit device status, 1 indicates an ON status and 0 indicates an OFF status.
- Bit devices are monitored in units of 16 points.
  If any device outside the range supported by the programmable controller CPU is included in the 16 points, its value is displayed as "0".
- Specifying the device memory in the U*\G format enables the buffer memory to be monitored.
- When monitoring the set values of the timers and counters, indirectly specify the data registers.
- Devices cannot be monitored if the connection destination is not established.
- During monitoring, the transfer setting cannot be performed.
- During monitoring, "*" flashes under the scroll button.

(2) Operations on buffer memory screen

Monitor only the specified one type of buffer memory.



Operating procedure

1. **Set the items on the screen.**

Item	Description
Module I/O	Enter the first address of the module to be monitored.
Memory address	Enter the address of the buffer memory to be monitored in hexadecimal or decimal.
Monitor format	Set the monitor format. Item: Bit & Word — Description: Set the monitor screen to the bit and word display. Item: Bit — Description: Set the monitor screen to the bit display only. Item: Word — Description: Set the monitor screen to the word display only.
Display	Set the display format of the device values to be displayed when the monitor format is "Bit & Word" or "Word".
Data format	Set the radix (decimal/hexadecimal) when the display format is "16 bit integer" or "32 bit integer".

Item	Description
Bit order	Set the order in which the bit devices being monitored are arranged. **Item** / **Description** F-0 / Arranged in order of F, E, ... 1, 0 from left to right. 0-F / Arranged in order of 0, 1, ... E, F from left to right.

Display contents

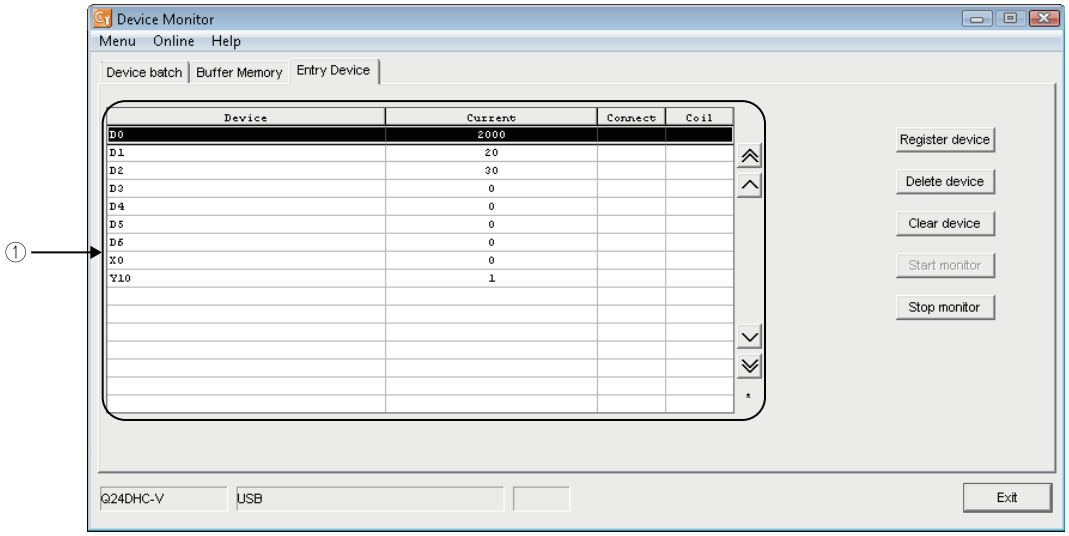
Item	Description
① (Monitor screen)	Display the buffer memory status.

Point

- For the bit device status, 1 indicates an ON status and 0 indicates an OFF status.
- Devices cannot be monitored if the connection destination is not established.
- During monitoring, the transfer setting cannot be performed.
- During monitoring, "*" flashes under the scroll button.
- During gateway function communication, devices cannot be monitored.

(3) Operation on entry device screen

Monitor the specified devices on a single screen at the same time.



Display contents

Item	Description
① (Monitor screen)	Display the device status. Double-click the device name to display the "Write to Device" screen. (☞ Page 121, (4) in this section)

Screen button

- Register device

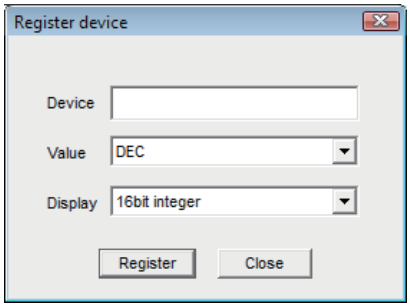
  Displays the "Register device" screen. (☞ Page 120, (3)(a) in this section)
- Delete device

  Deletes the device to be monitored.
- Clear device

  Deletes all devices registered in device entry monitor from the monitor screen.

(a) Register device

Register the device to be monitored.



Operating procedure

1. **Set the items on the screen.**

Item	Description
Device	Enter the device to be registered.
Value	Set the value to be entered when a word device is specified.
Display	Set the display format when a word device is specified.

Screen button

- Register

  Registers the device.

Point

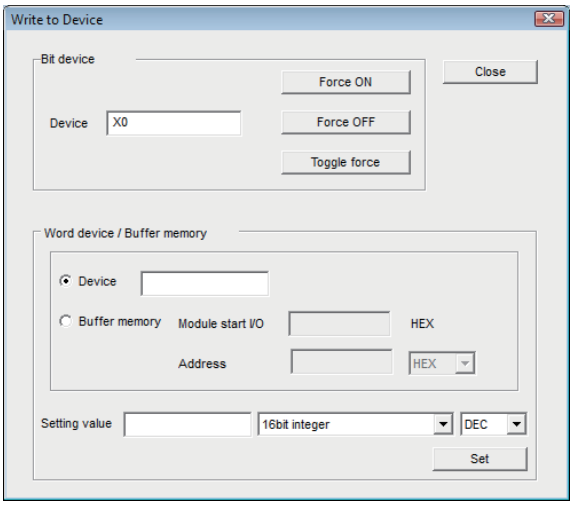
- When monitoring the set values of the timers and counters, indirectly specify the data registers.
- Devices cannot be monitored if the connection destination is not established.
- During monitoring, the transfer setting cannot be performed.
- During monitoring, "*" flashes under the scroll button.

(4) Writing devices

Change the ON/OFF of a bit device or the current value of a word device or buffer memory.

Point

- Do not specify file registers (ZR) when reading/writing data from/to C Controller module.
  Doing so may result in a malfunction caused by the data writing to data registers (D) and link registers (W).



Operating procedure

1. Set the items on the screen.

Item		Description
Bit device		–
	Device	Enter the device name.
Word device/Buffer memory		–
	Device	Select "Device" to enter the word device to be written.
	Buffer memory	Select "Buffer memory" to enter the module's start I/O and buffer memory address.
	Setting value	Enter the value to be written, select the data type, and select decimal or hexadecimal.

Screen button

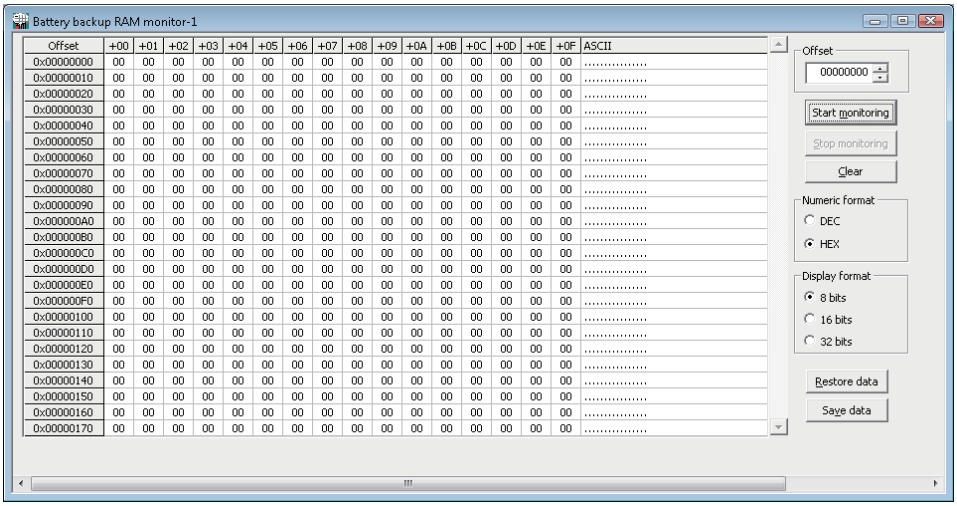
- Force ON
  Forcibly changes the specified device to the ON status.
- Force OFF
  Forcibly changes the specified device to the OFF status.
- Toggle force
  Forcibly changes the specified device from the ON to OFF status or from the OFF to ON status.
- Set
  Writes set data to the word device/buffer memory.

8.3 Monitoring Battery Backup RAM

This section explains how to monitor the battery backup RAM.

Screen display

- **Select [Online] ⇒ [Battery backup RAM monitor].**



Operating procedure

1. **Set the items on the screen.**

Item	Description
Offset	Enter the offset of the battery backup RAM to be monitored in 16-byte unit.
Numeric format	Select a numeric format for the battery backup RAM monitoring.
Display format	Select a display format of battery backup RAM monitoring.
Modify value (numeric display)	Display the "Input" screen by double-clicking the data. (☞ Page 123, (1) in this section)

Screen button

- Start monitoring / Stop monitoring

  Starts or stops monitoring the C Controller module.
  "*" flashes in the upper right of the button during monitoring.
- Clear

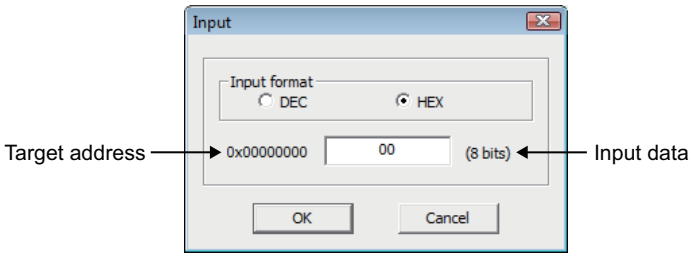
  Changes all battery backup RAM data to 0.
- Restore data

  Restores all battery backup RAM data (binary format only) stored on a personal computer to the C Controller module.
- Save data

  Stores all battery backup RAM data in CSV format or binary format.
  (☞ Page 124, (2) in this section)

(1) Data setting screen

Enter data to the battery backup RAM.



Operating procedure

1. **Set the items on the screen.**

Item	Description
Input format	Select a format of the value (decimal/hexadecimal) to be entered for 'input data'. (Default: "Numeric format" selected on the Battery backup RAM monitor screen)
Target address	Display the address of the battery backup RAM where the data are to be entered.
Input data	Enter data to be entered to the battery backup RAM.

Screen button

- OK

  Enters the value specified for 'input data' to the battery backup RAM, and closes the "Input" screen.

- Cancel

  Closes the "Input" screen without entering the value specified for 'input data' to the battery backup RAM.

Point

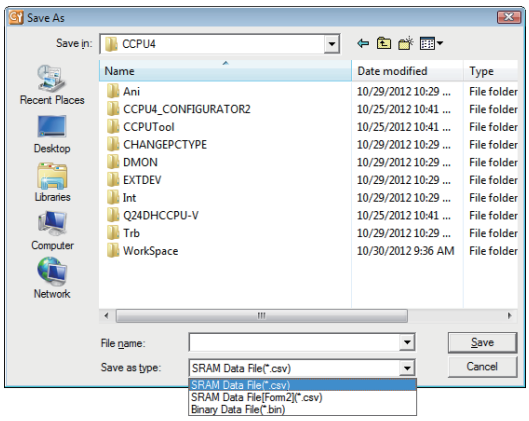
- The applicable setting ranges for data to be entered are as follows.

Display Mode	Decimal number	Hexadecimal number
8 bit	-128 to 127	0 to FFH
16 bit	-32768 to 32767	0 to FFFFH
32 bit	-2147483648 to 2147483647	0 to FFFFFFFFH

- Monitoring and data change/save of battery backup RAM cannot be performed while the user CPU is being restarted.

(2) Format for data to be saved

The format for data to be saved can be selected from "Save as type" on the "Save As" screen.



(a) SRAM Data File (*.csv)

This file type is used to utilize the saved file data in programs such as user programs.

Connection route

```
Battery backup RAM data,USB
Offset,[+00],[+01],[+02],[+03],[+04],[+05],[+06],[+07],[+08],[+09],[+0A],[+0B],[+0C],[+0D],[+0E],[+0F]
0x00000000,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000010,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000020,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000030,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000040,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000050,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000060,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000070,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000080,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
```

(b) SRAM Data File [Form2] (*.csv)

This file type is used to open the saved file data in an application such as Microsoft® Excel.

Connection route

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	[Battery backup RAM data]	[USB]															
2	[Offset]	[+00]	[+01]	[+02]	[+03]	[+04]	[+05]	[+06]	[+07]	[+08]	[+09]	[+0A]	[+0B]	[+0C]	[+0D]	[+0E]	[+0F]
3	[0x00000000]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
4	[0x00000010]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
5	[0x00000020]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
6	[0x00000030]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
7	[0x00000040]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
8	[0x00000050]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
9	[0x00000060]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
10	[0x00000070]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
11	[0x00000080]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]

(c) Binary Data File (*.bin)

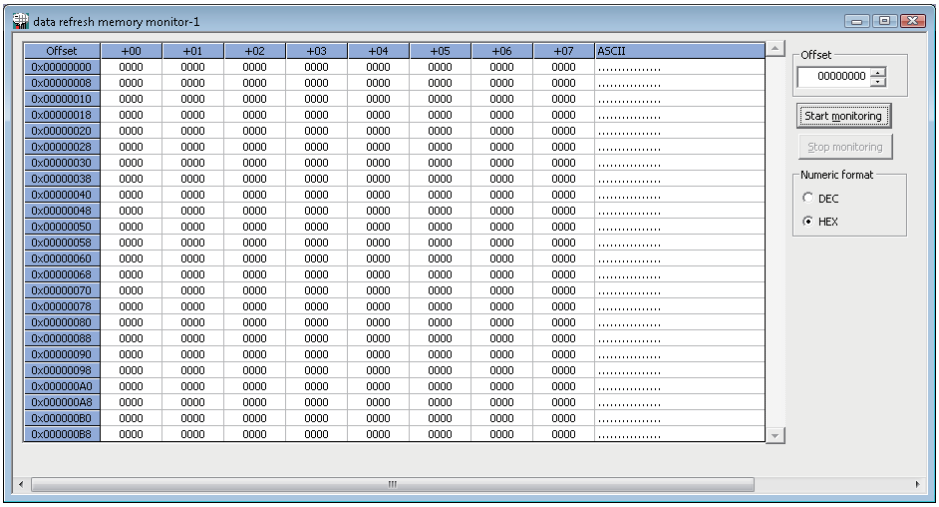
This file type is used to restore the saved file data to a C Controller module.

8.4 Monitoring Data Refresh Memory

This section explains how to monitor the data refresh memory.

Screen display

- **Select [Online] ⇒ [Data refresh memory monitor].**



Operating procedure

1. **Set the items on the screen.**

Item	Description
Offset	Enter the offset of the data refresh memory to be monitored (0 to BF38H) in 8-word unit.
Numeric format	Select the format of the value (decimal/hexadecimal) for the data refresh memory monitoring.
Modify value (numeric display)	Display the "Input" screen by double-clicking the data. (☞ Page 126, (1) in this section)

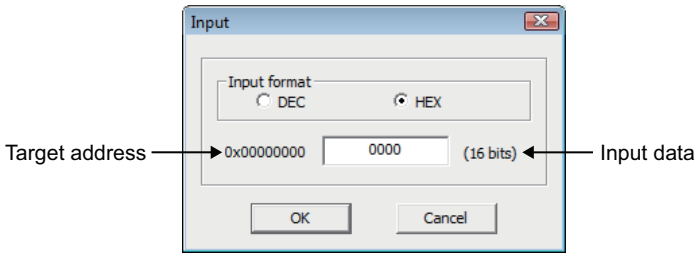
Screen button

- Start monitoring / Stop monitoring

  Starts or stops monitoring the C Controller module.
  "*" flashes in the upper right of the button during monitoring.

(1) Input screen

Enter data to the data refresh memory.



Operating procedure

1. Set the items on the screen.

Item	Description
Input format	Select a format of the value to be entered for "Input data". (Default: The numeric format selected on the "Data refresh memory monitor" screen.)
Target address	Display the address of the data refresh memory where the data are to be entered.
Input data	Enter data to be entered to the data refresh memory.

Screen button

- OK

  Enters the value specified for 'input data' to the data refresh memory, and closes the "Input" screen.
- Cancel

  Closes the "Input" screen without entering the value specified for 'input data' to the data refresh memory.

Point

- The applicable setting ranges for data to be entered are as follows.

Decimal number	Hexadecimal number
-32768 to 32767	0 to FFFFH

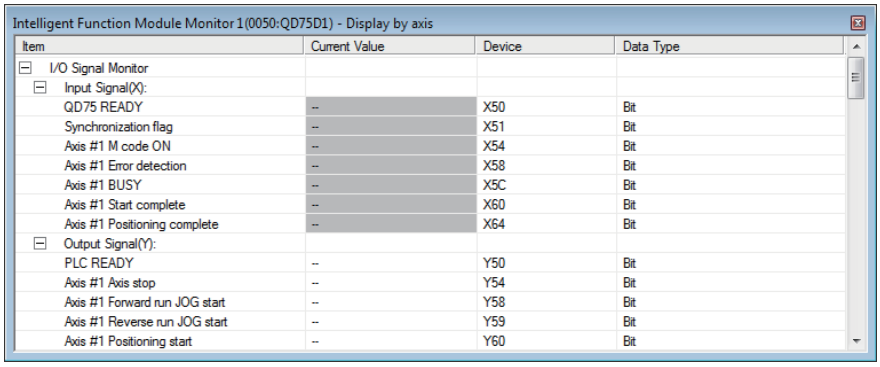
8.5 Monitoring Intelligent Function Modules

This section explains how to monitor input/output signals and buffer memory of an intelligent function module.

(1) Registering and monitoring intelligent function modules

Screen display

- **Select [View] ⇒ [Docking Window] ⇒ [Intelligent Function Module Monitor] ⇒ [Intelligent Function Module Monitor 1] to [Intelligent Function Module Monitor 10].**



Item	Current Value	Device	Data Type
I/O Signal Monitor			
Input Signal(X):			
QD75 READY	--	X50	Bit
Synchronization flag	--	X51	Bit
Axis #1 M code ON	--	X54	Bit
Axis #1 Error detection	--	X58	Bit
Axis #1 BUSY	--	X5C	Bit
Axis #1 Start complete	--	X60	Bit
Axis #1 Positioning complete	--	X64	Bit
Output Signal(Y):			
PLC READY	--	Y50	Bit
Axis #1 Axis stop	--	Y54	Bit
Axis #1 Forward run JOG start	--	Y58	Bit
Axis #1 Reverse run JOG start	--	Y59	Bit
Axis #1 Positioning start	--	Y60	Bit

Operating procedure

1. **Register the intelligent function module to be monitored.**
   For the registration method, refer to the following section.
   ☞ Page 130, (2) in this section
2. **Select [Online] ⇒ [Monitor] ⇒ [Start Watching].**
   The current values of the registered intelligent function module are displayed on the window.

Display contents

Item	Description
Item	Display the name of the module information. When "Data Type" is 'Detail Dialog'/'Error Code' or 'Warning Code', an icon is displayed at the head of each item.
Current value	Display the current value of the module information. Display character strings such as ON/OFF.
Device	Display the device assigned to the module information.
Data Type	Display the data type of the module information. For 'Detail Dialog'/'Error Code'/'Warning Code', details of each item can be confirmed. For details, refer to Point in this section.

(a) Customizing monitoring items

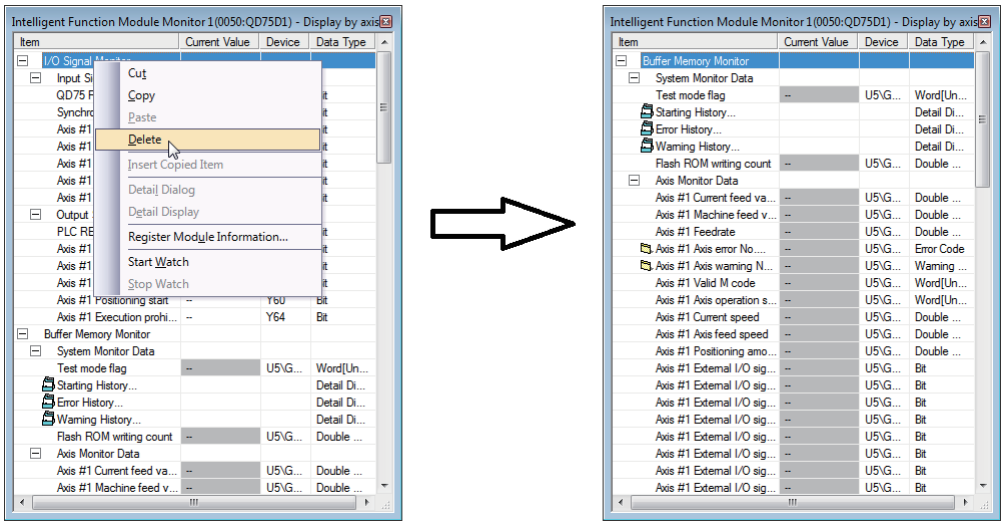
The module information registered to the Intelligent Function Module Monitor window can be customized by cutting/copying/pasting/deleting unnecessary items.

The customized settings are saved along with the project.

Note that the operations to 'undo' the customized items cannot be performed.

Operating procedure

- **Select an unnecessary item on the Intelligent Function Module Monitor window, right-click it and select [Cut]/[Copy]/[Paste]/[Delete] from the shortcut menu.**

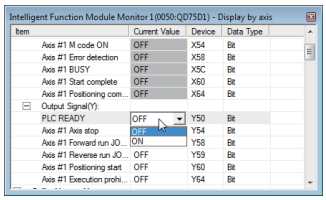


Point

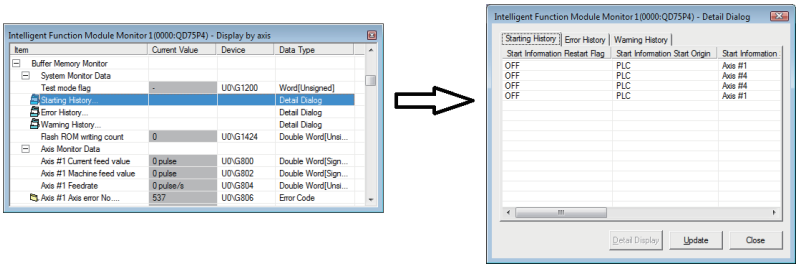
- Paste
  The cut/copied items can be pasted in the same project on the same window only.

Point

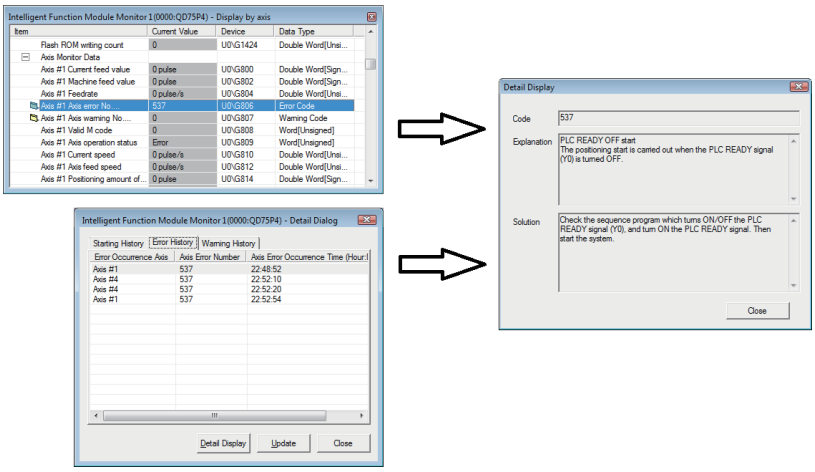
- Changing current value
  The current value can be changed by entering a value directly in the "Current value" column during monitoring.
  When the current value to be changed is displayed in character strings such as ON/OFF, available choices are shown in a combo box. The current value that cannot be changed is displayed in gray background.



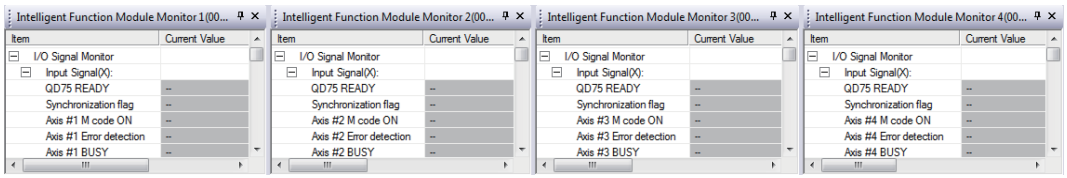
- Detailed display of history information
  For the analog module, QD75 type positioning module, and FL-net (OPCN-2) interface module, details of the history information can be displayed during the monitoring.
  To display details of the history information, double-click a row in which 'Detail Dialog' is displayed in the "Data Type" column, or right-click it and select [Detail Dialog] from the shortcut menu.
  The following shows the "Detail Dialog" screen for QD75P4.



- Detailed display of error code/warning code
  Details of the error code/warning code can be displayed from the Intelligent Function Module Monitor windows or the screen of error/warning history.
  To display details of the error code/warning code, double-click a row in which an error code/warning code is displayed, or right-click it and select [Detail Display] from the shortcut menu.
  The following shows the "Detail Display" screen of error code for QD75P4.



- Using multiple Intelligent Function Module Monitor windows
  Each axis of positioning module can be monitored by activating multiple Intelligent Function Module Monitor windows and customizing the settings of each window.



(2) Registering intelligent function modules

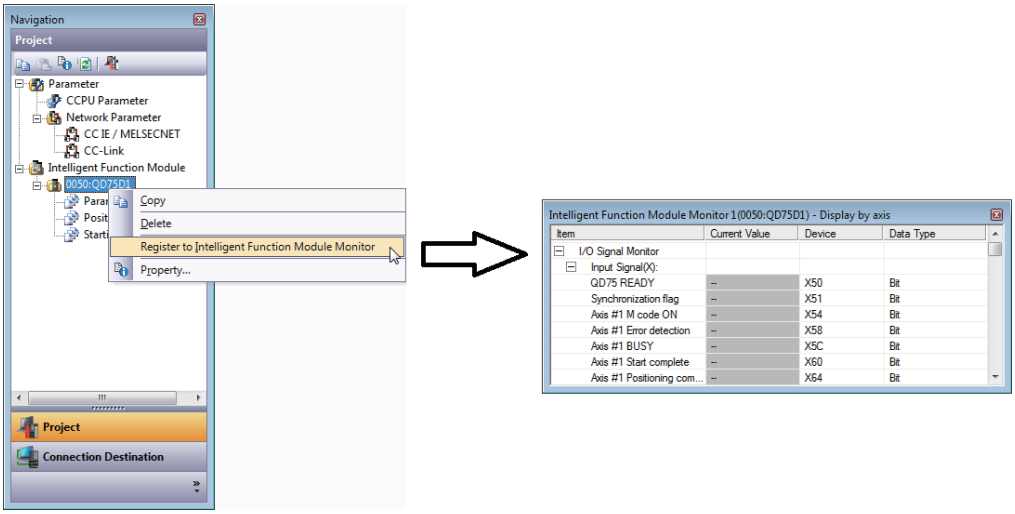
Register an intelligent function module to the Intelligent Function Module Monitor window.

(a) Registering intelligent function modules using shortcut menu from Project view

Register an intelligent function module using the shortcut menu from the Project view.

Operating procedure

1. **Select a module to be registered to the Intelligent Function Module Monitor window from the Project view.**
2. **Right-click and select [Register to Intelligent Function Module Monitor] in the shortcut menu.**
   The module is registered to the Intelligent Function Module Monitor window.

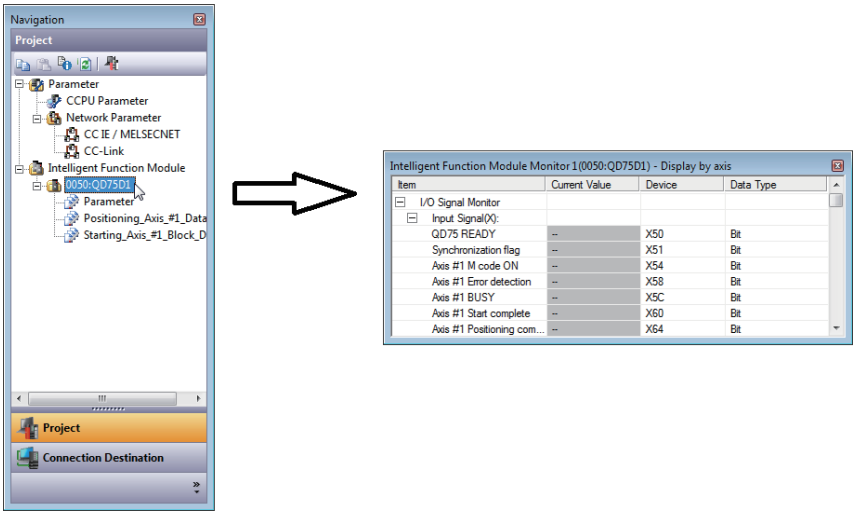


(b) Registering intelligent function modules using drag-and-drop operation

Register an intelligent function module using the drag-and-drop operation from the Project view.

Operating procedure

1. **Select a module to be registered from the Project view.**
2. **Drag and drop it to the Intelligent Function Module Monitor window.**
   The module is registered.

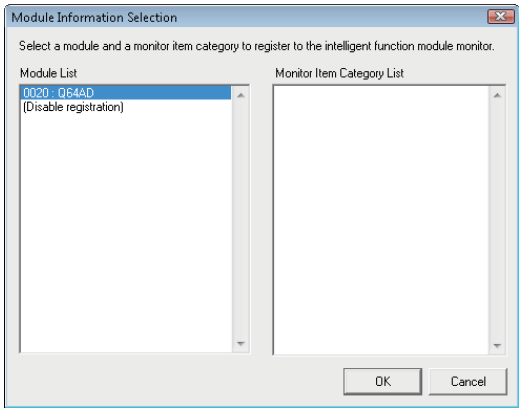


(c) Registering intelligent function modules using shortcut menu from Intelligent Function Module Monitor window

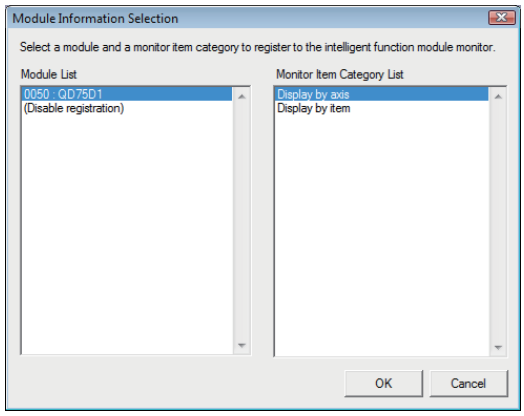
Register an intelligent function module using the shortcut menu from the Intelligent Function Module Monitor window.

Operating procedure

1. **Right-click on the Intelligent Function Module Monitor window and select [Register Module Information] from the shortcut menu.**
   The "Module Information Selection" screen is displayed.


Module Information Selection
Select a module and a monitor item category to register to the intelligent function module monitor.
Module List
0020 : Q64AD
(Disable registration)
Monitor Item Category List
OK
Cancel

2. **Select a module to be registered from "Module List" and click the OK button.**
   The module is registered to the Intelligent Function Module Monitor window.
   When selecting the positioning module or FL-net (OPCN-2) interface module in "Module List", select an item displayed on "Monitor Item Category List".
   [Example] Positioning module



Point

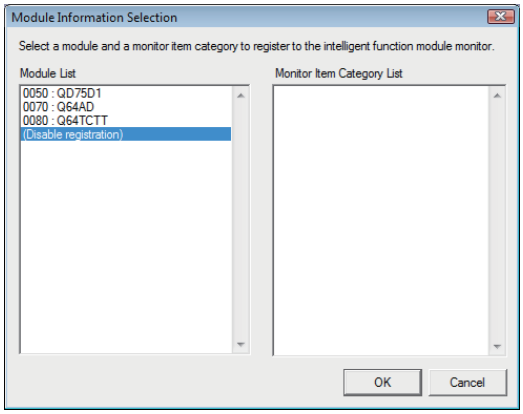
- Customizing monitoring items
  The registered intelligent function module information can be customized by right-clicking the desired module information on the Intelligent Function Module Monitor window and selecting [Cut]/[Copy]/[Paste]/[Delete] in the shortcut menu.
  (☞ Page 128, (1)(a) in this section)
- Copying module information
  Module information can be copied by right-clicking a desired module information and selecting [Copy] from the shortcut menu on the Intelligent Function Module Monitor window, and pasted to such as text files.

(3) Canceling registration of intelligent function modules

Cancel the registration of the module information which is registered to the Intelligent Function Module Monitor window.

Operating procedure

1. **On the Intelligent Function Module Monitor window on which the registration is to be canceled, right-click and select [Register Module Information] in the shortcut menu.**
   The "Module Information Selection" screen is displayed.

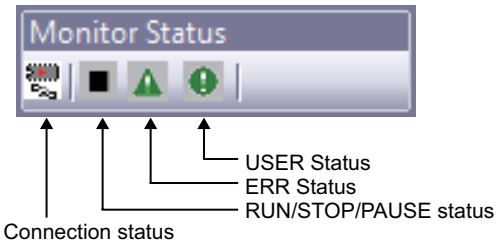


2. **Select "(Disable registration)" and click the OK button.**
   The registration of the module is canceled.

(4) Checking monitoring status

Screen display

- **The monitoring status is displayed when the monitoring on the intelligent function module starts, and hidden when the monitoring stops.**



Display contents

Item	Description
Connection status	Display the connection status between the C Controller module and the personal computer.
	When connected to the C Controller module
RUN/STOP/PAUSE status	Display the C Controller module status operated by the key switch on the C Controller module or the remote operation from Setting/monitoring tools for the C Controller module.
	RUN
	STOP
	PAUSE
ERR Status	Display the ERR. LED status of the C Controller module. The "CCPU Diagnostics" screen is displayed when the icon is clicked.
	ERR. is OFF.
	ERR. is ON.
	ERR. is flashing.
USER Status	Display the USER LED status of the C Controller module. The "CCPU Diagnostics" screen is displayed when the icon is clicked.
	USER is OFF.
	USER is ON.
	USER is flashing.

CHAPTER 9 OPERATING C CONTROLLER MODULE

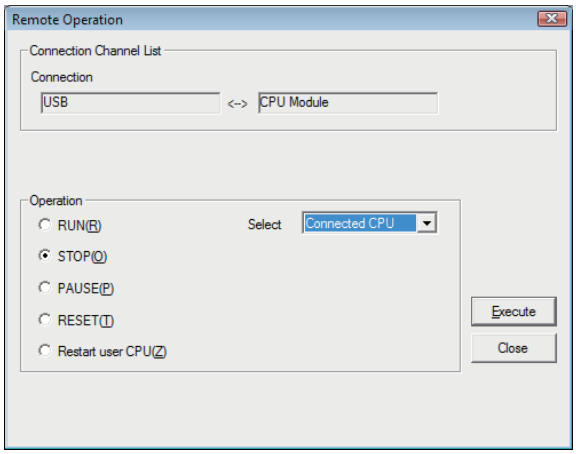
This chapter explains how to change the execution status and set the clock of the CPU module (programmable controller CPU/C Controller module) from Setting/monitoring tools for the C Controller module.

9.1 Remote Operation of C Controller Module

This section explains how to switch the RUN/STOP status of the C Controller module from Setting/monitoring tools for the C Controller module.

Screen display

- **Select [Online] ⇒ [Remote Operation].**



Operating procedure

1. **Set the items on the screen.**

Item		Description
Connection Channel List		Display the information of the connection destination.
Select		Select the target CPU module for the remote operation.
	Connected CPU	Select this to set the host CPU as a target CPU.
	No.1 to No.4	Select this to set the other CPUs as a target CPU.
Operation		Select the operation details.
	RUN	Select this to switch the operating status of the CPU module to RUN/STOP/PAUSE.
	STOP	
	PAUSE	
	RESET*1	Select this to reset the C Controller module.
	Restart user CPU	Select this to restart the user CPU of the C Controller module.

*1 : The reset operation cannot be performed on Q06CCPU-V (-B), Q12DCCPU-V (with a serial number whose first five digits are "12041" or higher) from Setting/monitoring tools for the C Controller module. Use the switch operation or the "QBF_ControlEx" function.

2. **Click the** Execute **button.**

Point

- Remote operation and RUN/STOP switch
  When operation to the programmable controller CPU differs among controls by the remote operation and RUN/STOP switch, the C Controller module operates according to the priority shown below.

Operation to the CPU module	Priority
STOP	1
RUN	2
PAUSE	3

The following table shows the operation of CPU module RUN/STOP switch after the execution of the remote operation.

–		CPU module switch[*3]	
		RUN	STOP
Remote operation	RUN	RUN	STOP
	STOP	STOP	STOP
	PAUSE	PAUSE	STOP
	RESET[*1]	Inoperable[*2]	RESET

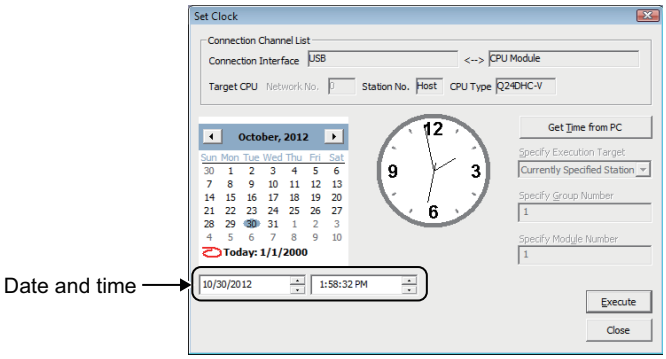
*1 : Parameters need to be written with the remote reset setting set to "Permit" on the <<System settings>> tab of CCPU parameter or on the <<PLC System>> tab of PLC parameter.
*2 : Operable when the C Controller module is set to STOP by remote operation.
*3 : The remote operation can be performed even when the RUN/STOP switch is set to STOP. Therefore, when the RUN/STOP switch is set from STOP to RUN, the remote operation is performed in the status of the last operation.

9.2 Setting Clock on C Controller Module

This section explains how to set the clock on a C Controller module.

Screen display

- **Select [Online] ⇒ [Set Clock].**



Operating procedure

1. **Set the items on the screen.**

Item	Description
Connection Channel List	Display the information of the connection destination.
Date and time	Set the date and time.

2. **Click the** Execute **button.**

The C Controller module clock is set.

Screen button

- Get Time from PC

  Applies the time of personal computer to the 'date and time' boxes.

Point

- Considerations of the clock setting
  In the clock setting, a time-lag error may appear due to the span of transfer.

CHAPTER 10 DIAGNOSING C CONTROLLER MODULE

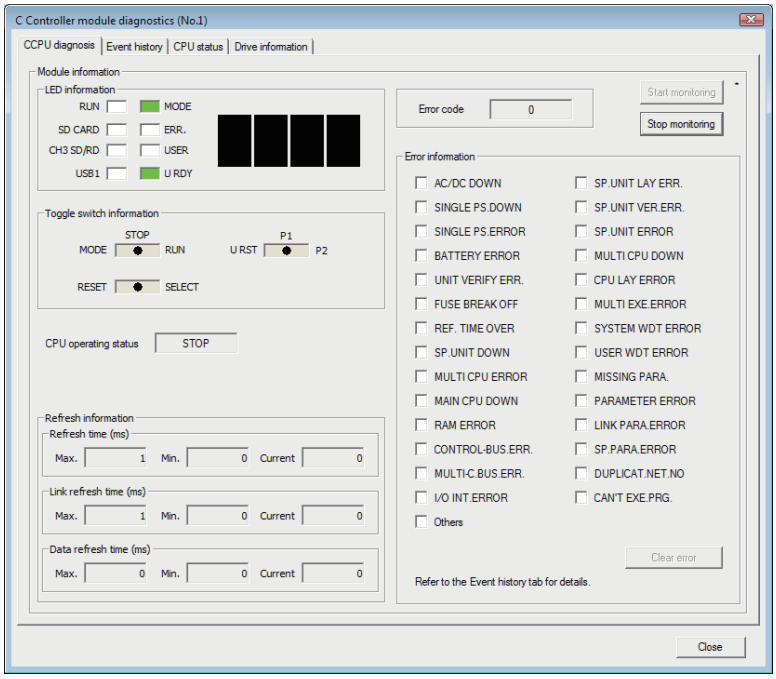
This chapter explains how to display system status and error codes of the C controller module.

10.1 Diagnosing C Controller Module

Display the status and the error code of the C controller module.

Screen display

- **Select [Diagnostics] ⇒ [CCPU Diagnostics].**



Display contents

Item		Description
Module information		Display the system status and error codes of the C controller module.
	LED information	Display the LED status.
	Toggle switch information	Display the status of the RUN/STOP/MODE switch, the RESET/SELECT switch, and the U RST/P1/P2 switch.
	CPU operating status	Display the operating status.
	Error code	Display the most recent error code.
	Error information	The color of the box in front of the item corresponding to the stop error/continuation error turns from white to red.
Refresh information		Display the maximum/minimum/current values of the refresh time, the link refresh time, and the data refresh time.

Screen button

- Start monitoring / Stop monitoring

  Starts/stops monitoring.
- Clear error

  Clears the continuation error.
- Update

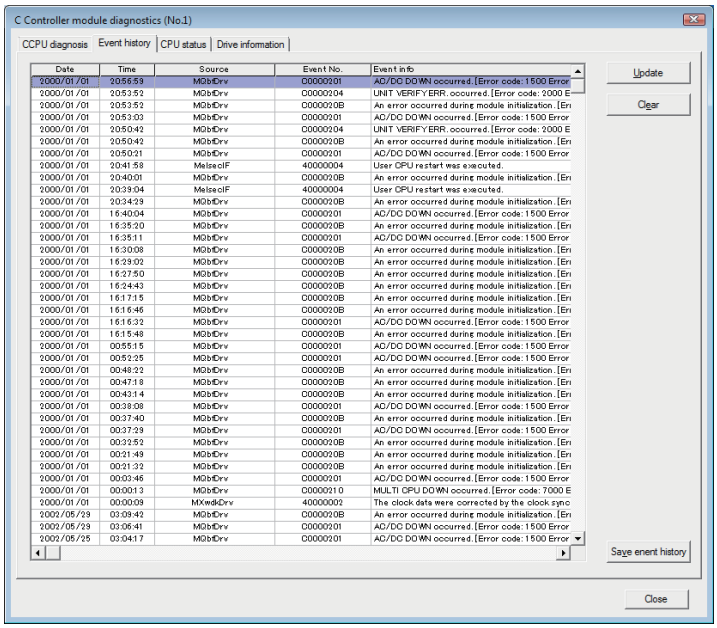
  Updates the drive information.

10.2 Displaying/Saving Event History Occurred on C Controller Module

This section explains how to display the event history occurred on a C Controller module. The event history can be saved as CSV format file.

Screen display

- **Select [Diagnostics] ⇒ [Event history].**



Display contents

Item		Description
Event history		Display the event history occurred on the C Controller module.
	Date	Display the date of the event occurrence.
	Time	Display the time of the event occurrence.
	Source	Display the source of the event occurrence.
	Event No.	Display the event occurrence number.
	Event info	Display the event information corresponds to the event occurrence number.

Screen button

- Update

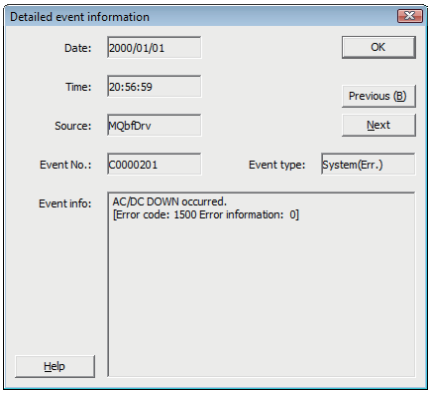
  Displays the most recent event history.
- Clear

  Deletes the event history.
- Save enent history

  Saves the displayed event history as CSV format file.
  (☞ Page 140, (1) in this section)

Point

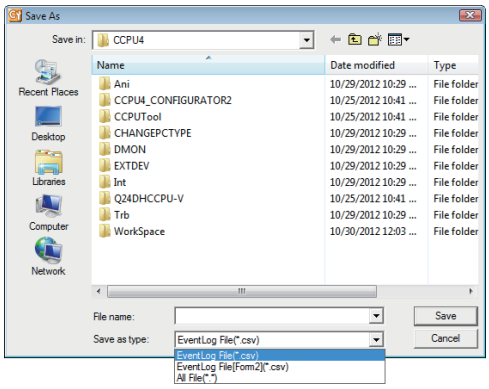
- Displaying the "Detailed event information" screen
  The following "Detailed event information" screen is displayed by double-clicking the event item on the event history column.



  - The page of the manual corresponding to the error code is displayed by clicking the Help button on the "Detailed event information" screen. (If the manual is already opened, the corresponding page will not be displayed.)
  - "Detail No." (Internal Code) may be displayed on the "Event info" field depending on the error.

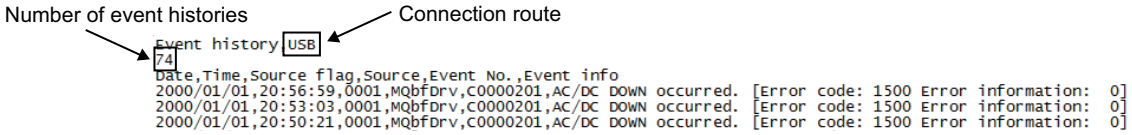
(1) Format for data to be saved

The format for data to be saved can be selected from "Save as type" on the "Save As" screen.



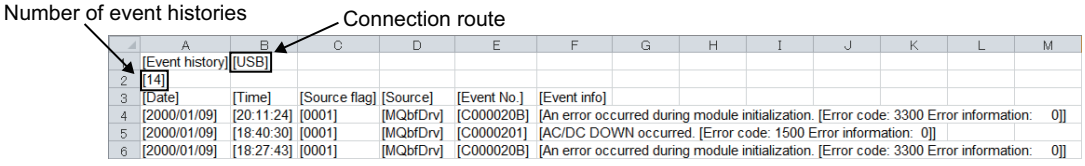
(a) EventLog File (*.csv)

This file type is used to utilize the saved file data in programs such as user programs.


Number of event histories
Connection route
Event history,USB
74
Date,Time,Source flag,Source,Event No.,Event info
2000/01/01,20:56:59,0001,MQbfDrv,C0000201,AC/DC DOWN occurred. [Error code: 1500 Error information: 0]
2000/01/01,20:53:03,0001,MQbfDrv,C0000201,AC/DC DOWN occurred. [Error code: 1500 Error information: 0]
2000/01/01,20:50:21,0001,MQbfDrv,C0000201,AC/DC DOWN occurred. [Error code: 1500 Error information: 0]

(b) EventLog File [Form2] (*.csv)

This file type is used to open the saved file data in an application such as Microsoft® Excel.



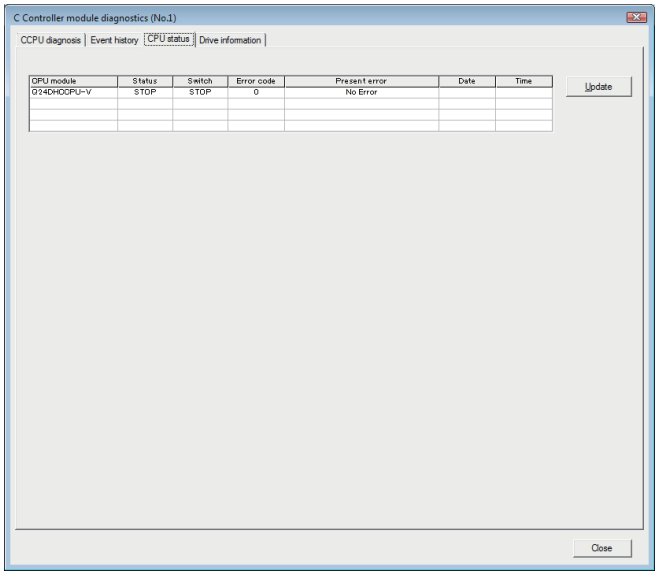
	A	B	C	D	E	F	G	H	I	J	K	L	M
1	[Event history]	[USB]											
2	[14]												
3	[Date]	[Time]	[Source flag]	[Source]	[Event No.]	[Event info]							
4	[2000/01/09]	[20:11:24]	[0001]	[MQbfDrv]	[C000020B]	[An error occurred during module initialization. [Error code: 3300 Error information: 0]]							
5	[2000/01/09]	[18:40:30]	[0001]	[MQbfDrv]	[C0000201]	[AC/DC DOWN occurred. [Error code: 1500 Error information: 0]]							
6	[2000/01/09]	[18:27:43]	[0001]	[MQbfDrv]	[C000020B]	[An error occurred during module initialization. [Error code: 3300 Error information: 0]]							

10.3 Checking CPU Module Status

This section explains how to check the operating status, the switch status, and the current errors of a C Controller module and CPU modules.

Screen display

- **Select [Diagnostics] ⇒ [CPU status].**



Display contents

Item		Description
CPU status		Display the operating status, the switch status, and the current errors of the C Controller module and CPU modules.
	CPU module	Display the model of the C Controller module and CPU modules.
	Status	Display the operating status of the C Controller module and CPU modules.
	Switch	Display the switch status of the C Controller module and CPU modules.
	Error code	Display the error code of the most recent stop error/continuation error among the errors being occurring on the C Controller module and CPU modules.
	Present error	Display the error message for the error code.
	Date	Display the date of the error occurrence.
	Time	Display the time of the error occurrence.

Screen button

- Update

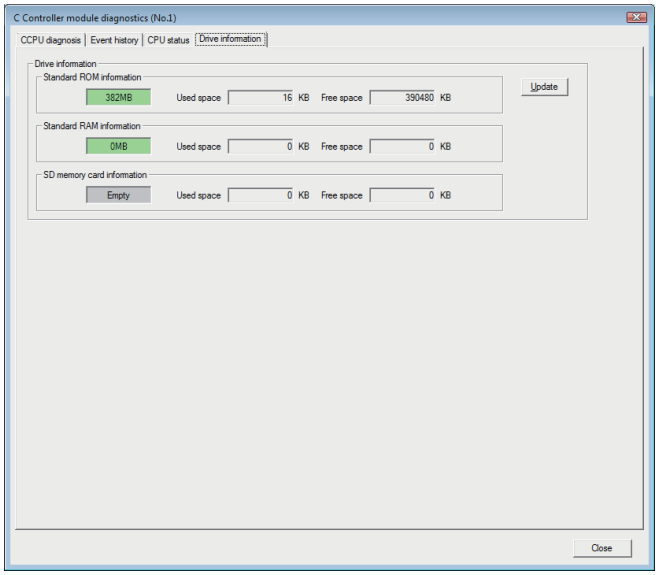
  Displays the most recent CPU status.

10.4 Checking Drive Information of C Controller Module

This section explains how to display the drive information of the C Controller module.

Screen display

- **Select [Diagnostics] ⇒ [Drive information].**



Display contents

Item		Description
Drive information		Display the drive information of the C Controller module.
	Standard ROM information	Display the size and used/free space of the standard ROM.
	Standard RAM information	Display the size and used/free space of the standard RAM. "0" is displayed when the standard RAM is not set.
	SD memory card information	Display the size and used/free space of the SD memory card. "Empty" is displayed when the SD memory card is not installed.

Screen button

- Update

  Displays the most recent drive information.

10.5 Diagnosing CC-Link IE Controller Network

This section explains how to check the CC-Link IE Controller Network status of a selected module.

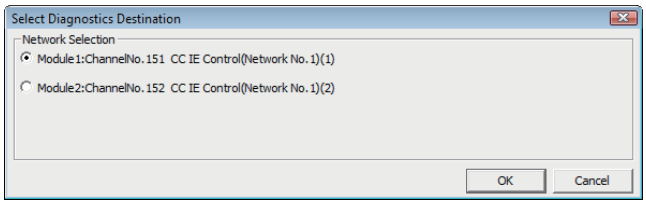
Point

- Details of CC-Link IE Controller Network diagnostics
  Refer to CC-Link IE Controller Network Reference Manual.

(1) Selecting the diagnostics target

When two or more CC-Link IE Controller Network modules are connected to the connected station, the "Select Diagnostics Destination" screen as shown below is displayed before starting diagnostics.

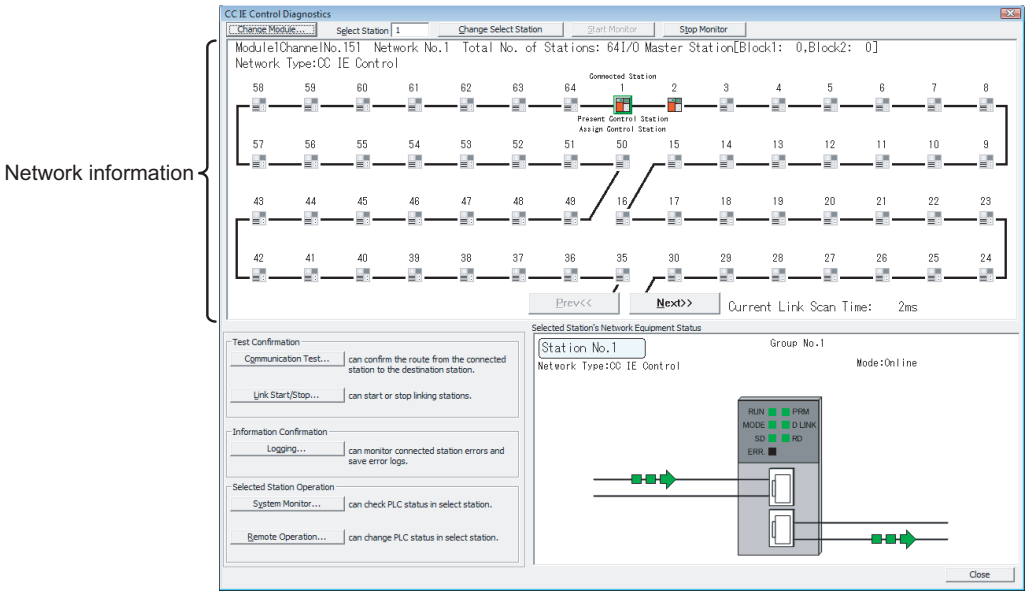
Select a network to be diagnosed and click the OK button.



(2) Diagnostics screen

Screen display

- **Select [Diagnostics] ⇒ [CC IE Control Diagnostics].**



Display contents

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Network information</td><td>Display the network information of the selected module. The status is displayed by icons shown below.
<table>
<tr><th colspan="2">Icon</th><th rowspan="2">Station status</th></tr>
<tr><th>Module</th><th>Board</th></tr>
<tr><td> </td><td> </td><td>Normally operating station</td></tr>
<tr><td> </td><td> </td><td>Focusing (icon enclosed by dotted line)</td></tr>
<tr><td> </td><td> </td><td>Selected station</td></tr>
<tr><td> </td><td> </td><td>Error (cyclic transmission stopped)</td></tr>
<tr><td> </td><td> </td><td>Warning (Although cyclic transmission is executed, an error occurred with a module and/or a cable)</td></tr>
<tr><td> </td><td> </td><td>Module whose shared group is different</td></tr>
<tr><td> </td><td>–</td><td>Reserved station (gray)</td></tr>
<tr><td> </td><td>–</td><td>Disconnected station (black)</td></tr>
<tr><td> </td><td>–</td><td>Current connected station, specified in the connection destination setting</td></tr>
<tr><td> </td><td>–</td><td>Number unspecified station (Although "Specify Station No. by Program" is selected in parameter (normal station only), a station number is not set in the program.)</td></tr>
</table>
Clicking an icon sets the corresponding station as the selected station and displays the details in "Selected Station's Network Equipment Status". The selected station can also be determined by moving the focus with the right and left arrow keys and pressing the Space or Enter key.
Double-clicking an icon displays the "System Monitor" screen (☞ Page 190, Section 10.9) of the corresponding station.</td></tr>
<tr><td>Selected Station's Network Equipment Status</td><td>Display the status of the CC-Link IE Controller Network module in the station selected in the network information display field and the status of the connecting cable.</td></tr>
</table>

Screen button

- Change Module...

  Displays the "Select Diagnostics Destination" screen. The diagnostic target module can be changed.
- Change Select Station

  Changes the selected station to the station to which the station number specified in "Select Station" is assigned. The status of the selected station is displayed in "Selected Station's Network Equipment Status".
- Prev<< / Next>>

  Switches the screen display of the network information when the total number of station is 61 or more.
- Communication Test...

  Displays the "Communication Test" screen. The communication route from the connected station to the specified destination station can be confirmed. (☞ Page 147, Section 10.5.1)

- Link Start/Stop...

  Displays the "Link Start/Stop" screen. The data link start/stop can be performed to the specified station.
  (☞ Page 148, Section 10.5.2)

- Logging...

  Displays the "Logging" screen. The communication route switch information and the transient transmission error of the connected station can be monitored. The monitor information can be saved in a file.
  (☞ Page 150, Section 10.5.3)

- System Monitor...

  Displays the "System Monitor" screen. The system status of the selected station can be confirmed.
  (☞ Page 190, Section 10.9)

- Remote Operation...

  Displays the "Remote Operation" screen. The remote operation can be performed to the programmable controller CPU of the selected station. (☞ Page 134, Section 9.1)

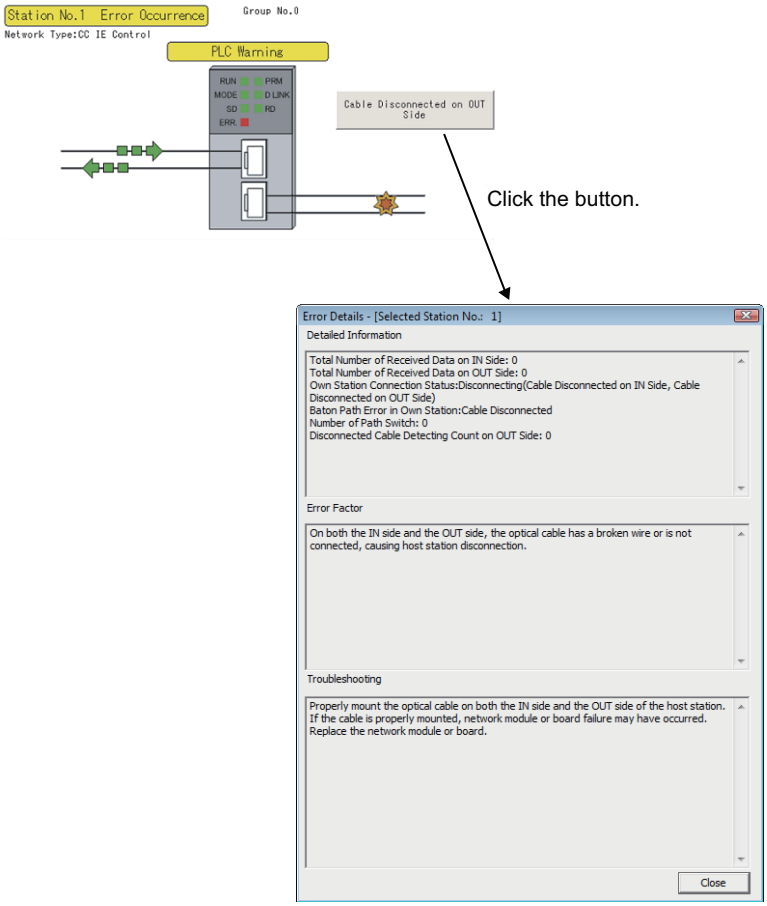
Point

- Connection destination for executing CC-Link IE Controller Network diagnostics
  The communication test, the link start/stop, the system monitor, and the remote operation can be executed only when the connected station is selected.
- When an unsupported CPU module is specified as the selected station, or a CC-Link IE Controller Network interface board is specified as the selected station
  The "System Monitor" screen and "Remote Operation" screen cannot be displayed when an unsupported CPU module is specified as the selected station. The "System Monitor" screen cannot be displayed when a CC-Link IE Controller Network interface board is specified as the selected station.
- When the total number of stations is set to 65 or more
  In a case where the total number of stations is set to 65 or more and High Performance model QCPU is specified as the connected station, an error occurs when a station whose station number is 65 or more is selected. The error, however, does not occur where Universal model QCPU is connected with a cable in a multiple CPU configuration.
- Communication test and link start/stop
  To execute the communication test or link start/stop, a target station must be connected using a USB cable.

(3) Display on the "Selected Station's Network Equipment Status" field when an error occurs

When an error occurs on a CC-Link IE Controller Network module or connection cable, the button is displayed on the "Selected Station's Network Equipment Status" field as shown below. The detailed information, error factor, and troubleshooting can be displayed by clicking the button.

The icon ( ) is displayed as shown below when a destination station is disconnected.

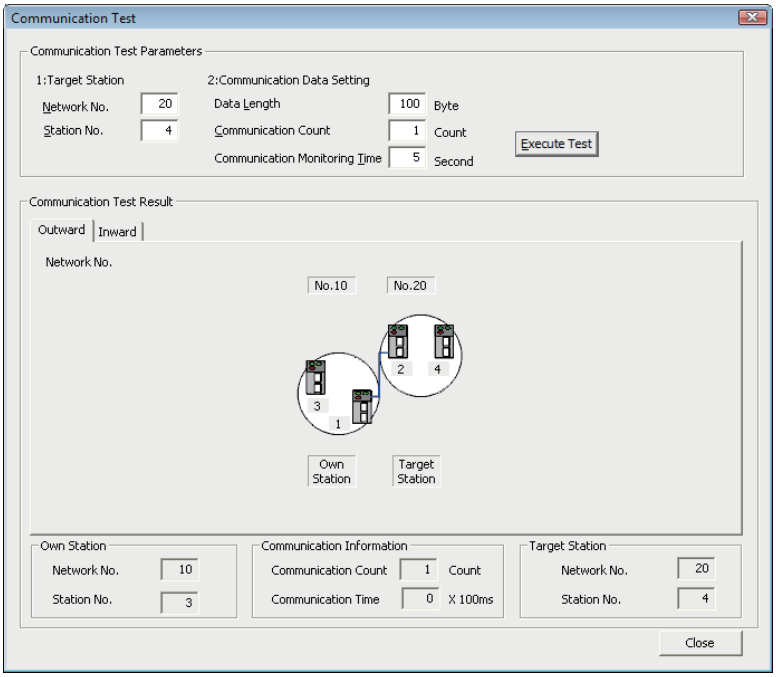

Station No.1 Error Occurrence
Group No.0
Network Type:CC IE Control
PLC Warning
RUN
PRM
MODE
D LINK
SD
RD
ERR.
Cable Disconnected on OUT Side
Click the button.
Error Details - [Selected Station No.: 1]
Detailed Information
Total Number of Received Data on IN Side: 0
Total Number of Received Data on OUT Side: 0
Own Station Connection Status:Disconnecting(Cable Disconnected on IN Side, Cable Disconnected on OUT Side)
Baton Path Error in Own Station:Cable Disconnected
Number of Path Switch: 0
Disconnected Cable Detecting Count on OUT Side: 0
Error Factor
On both the IN side and the OUT side, the optical cable has a broken wire or is not connected, causing host station disconnection.
Troubleshooting
Properly mount the optical cable on both the IN side and the OUT side of the host station.
If the cable is properly mounted, network module or board failure may have occurred.
Replace the network module or board.
Close

10.5.1 Communication test

Perform the communication test on CC-Link IE Controller Network.

Screen display

- **Click the [Communication Test...] button on the "CC IE Control Network Diagnostics" screen.**



Operating procedure

1. **Set the items on the screen.**

Item		Description
Communication Test Content		Set the items to execute the test.
	Target Station	Set the network number and station number.
	Communication Data Setting	Set the data length (1 to 900 bytes), the number of communications (1 to 100 times), and monitoring time (1 to 100 seconds) to execute the test.

2. **Click the [Execute Test] button.**
   The communication test is executed according to the settings.

Display contents

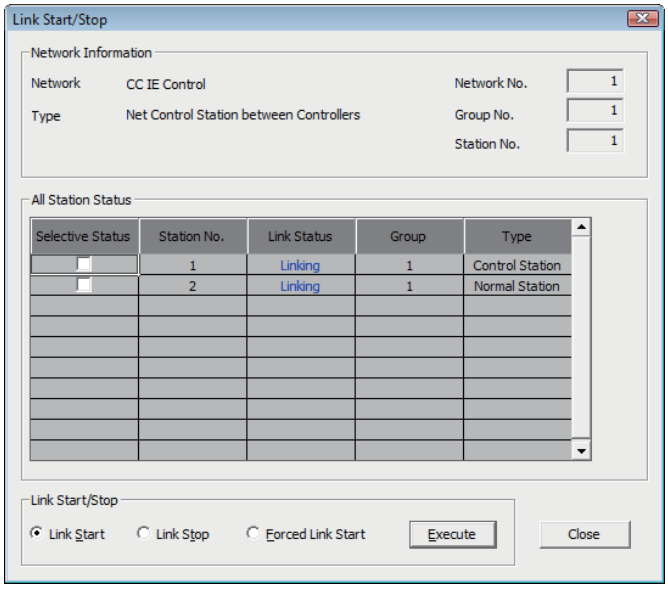
Item	Description
Communication Test Result	Display the result of inter-network communication test. Networks and stations routed from the own station (connected station) to the target station are displayed on the <<Outward>> tab and those routed from the target station to the own station (connected station) are displayed on the <<Inward>> tab.

10.5.2 Link start/stop

Start/stop the data link of individual stations on CC-Link IE Controller Network.

Screen display

- **Click the [Link Start/Stop...] button on the "CC IE Control Network Diagnostics" screen.**



Display contents

Item	Description
Network Information	Display the network information of the connected station.

Operating procedure

1. Set the items on the screen.

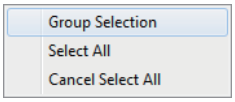
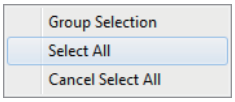
Item		Description
All Station Status		Display the link status of all stations on the same network which are performing the data link with the connected station. Target stations of the link start/stop operation can be selected in "Selective Status".
Link Start/Stop		–
	Link Start	Select this to start the data link.
	Link Stop	Select this to stop the data link.
	Forced Link Start	Select this to forcibly start the data link of a station which has been stopped by another station or a special relay/special register.

2. Click the [Execute] button.

The link start/stop is executed for all selected stations at once.

Point

- Selection of link start/stop
  The target stations of the link start/stop operation can also be selected by the following methods.

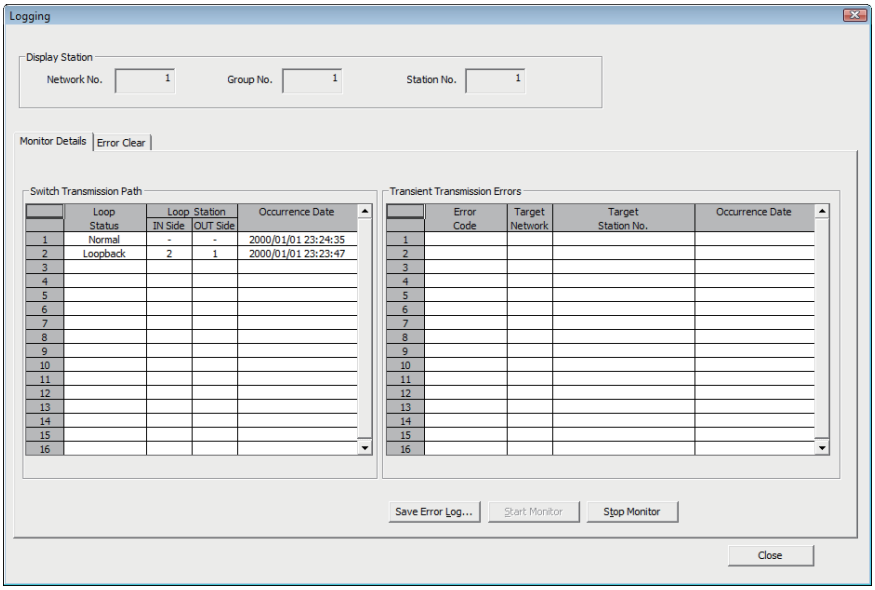
Selection	Operating procedure
Group Selection	Right-click on the "Group" column of a station and select "Group Selection" from the shortcut menu. Stations which have the same group number as the selected line become selected. When the "Group" column whose value is '0' is right-clicked, this shortcut menu cannot be selected. 
Select All	Right-click the "Station No." column of a station and select "Select All" from the shortcut menu. 

10.5.3 Logging

Display the communication route switch information and transient transmission error information of the selected station.

Screen display

- **Select the Logging... button on the "CC IE Control Network Diagnostics" screen.**



Display contents

Item	Description
Display Station	Display the network information of the currently selected station.

(1) Displaying the communication route switch information and transient transmission error information

The <<Monitor Details>> tab displays the communication route switch information and transient transmission error information.

Maximum 100 logs can be displayed. If the number of logs exceeds 100, the logs are deleted from the oldest one.

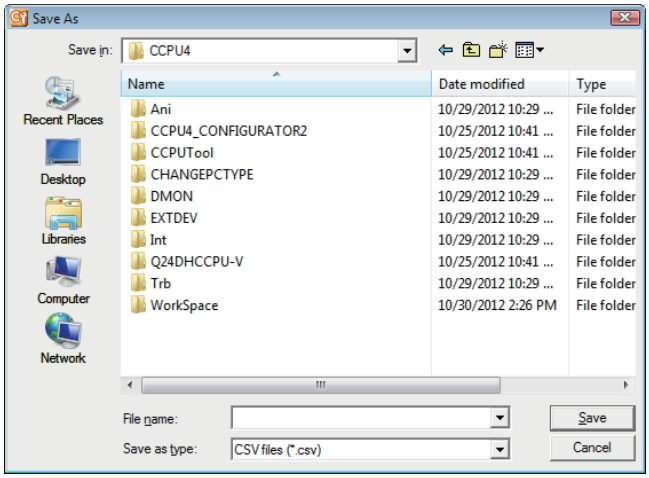
Display contents

Item	Description
Switch Transmission Path	Display the loop status of communication route, the number of station where loopback occurred, and the date when communication route switching occurred.
Transient Transmission Errors	Display the error code, network number and station number of the transient request target, and the date of error occurrence if transient transmission error occurs.

Screen button

- Save Error Log...

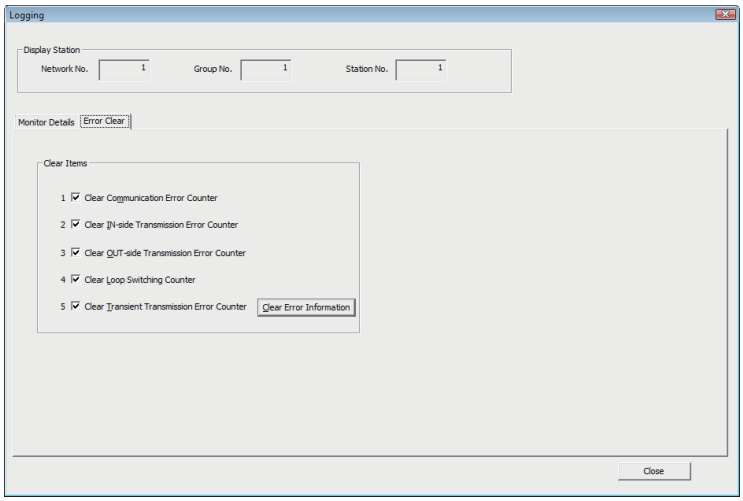
Displays the "Save As" screen and the contents displayed on the <<Monitor Details>> tab can be saved in a CSV file.



(2) Clearing errors

Clear the errors of the currently selected station using the <<Error Clear>> tab.

Screen display



Operating procedure

1. **Select the item to be cleared.**
2. **Click the** Clear Error Information **button.**

10.6 Diagnosing CC-Link IE Field Network

This section explains how to check the CC-Link IE Field Network status of a selected module.

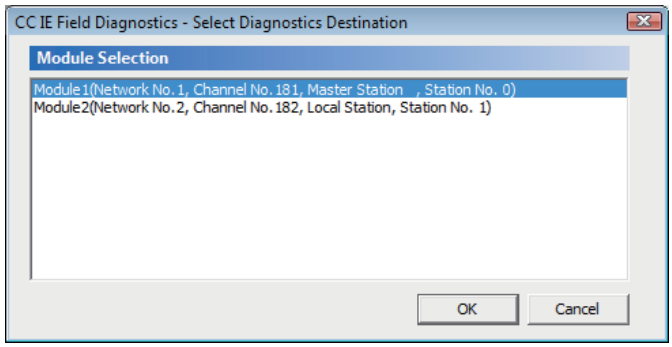
Point

- Details of CC-Link IE Field Network diagnostics
  Refer to the User's Manual of each module.

(1) Selecting the diagnostics target

When two or more CC-Link IE Field Network modules are connected to the connected station, the "Select Diagnostics Destination" screen as shown below is displayed before starting diagnostics.

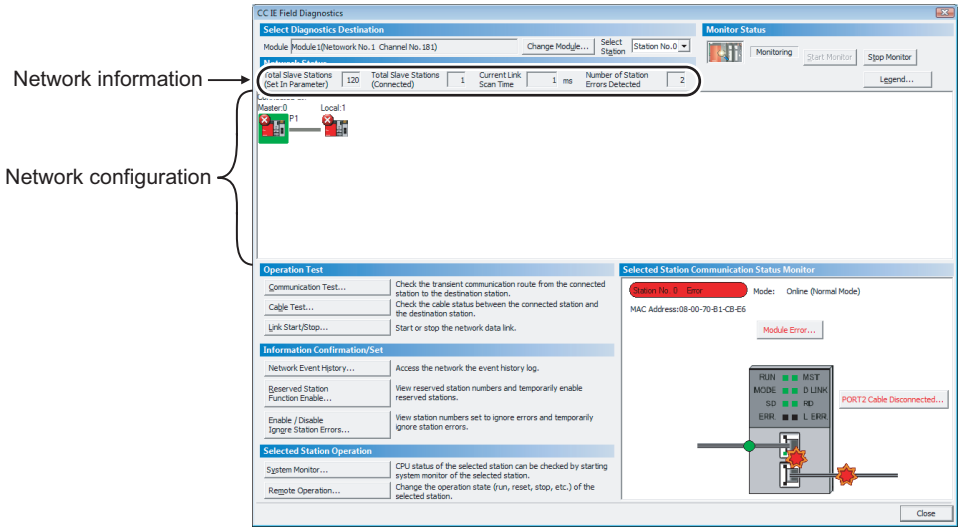
Select a network to be diagnosed and click the OK button.


CC IE Field Diagnostics - Select Diagnostics Destination
Module Selection
Module1(Network No.1, Channel No.181, Master Station , Station No. 0)
Module2(Network No.2, Channel No.182, Local Station, Station No. 1)
OK
Cancel

(2) Diagnostics screen

Screen display

- **Select [Diagnostics] ⇒ [CC IE Field Diagnostics].**



Display contents

<table>
<tr><th colspan="2">Item</th><th>Description</th></tr>
<tr><td colspan="2">Select Diagnostics Destination</td><td>–</td></tr>
<tr><td></td><td>Module</td><td>Display the module and network number of the diagnostics target.</td></tr>
<tr><td></td><td>Select Station</td><td>Display the station number of the station selected in the network information.</td></tr>
<tr><td colspan="2">Network Status</td><td>–</td></tr>
<tr><td></td><td>Network information</td><td>Display the total number of slave stations, the link scan time (in units of ms), and the number of error-detected stations on the network being displayed.</td></tr>
<tr><td></td><td>Network configuration</td><td>Display the state of the network. The status of each station is displayed by icons shown below.
<table>
<tr><th colspan="2">Icon</th><th rowspan="2">Station status</th></tr>
<tr><th>Master station/ local station</th><th>Head module</th></tr>
<tr><td> </td><td> </td><td>Normally operating station</td></tr>
<tr><td> </td><td> </td><td>Focusing (icon enclosed by dotted line)</td></tr>
<tr><td> </td><td> </td><td>Selected station</td></tr>
<tr><td> </td><td> </td><td>Error (data link stopped)</td></tr>
<tr><td> </td><td> </td><td>Warning (Although data link is executed, an error occurred with a module)</td></tr>
<tr><td> </td><td> </td><td>Disconnected station (black)</td></tr>
<tr><td> </td><td> </td><td>Number unspecified station</td></tr>
<tr><td> </td><td>–</td><td>Incorrect loop connection</td></tr>
</table>
Clicking an icon sets the corresponding station as the selected station and displays the details in "Selected Station Communication Status Monitor". The selected station can also be determined by moving the focus with the right and left arrow keys and pressing the Space or Enter key.</td></tr>
<tr><td colspan="2">Selected Station Communication Status Monitor*1</td><td>Display the communication status of the own station.</td></tr>
</table>

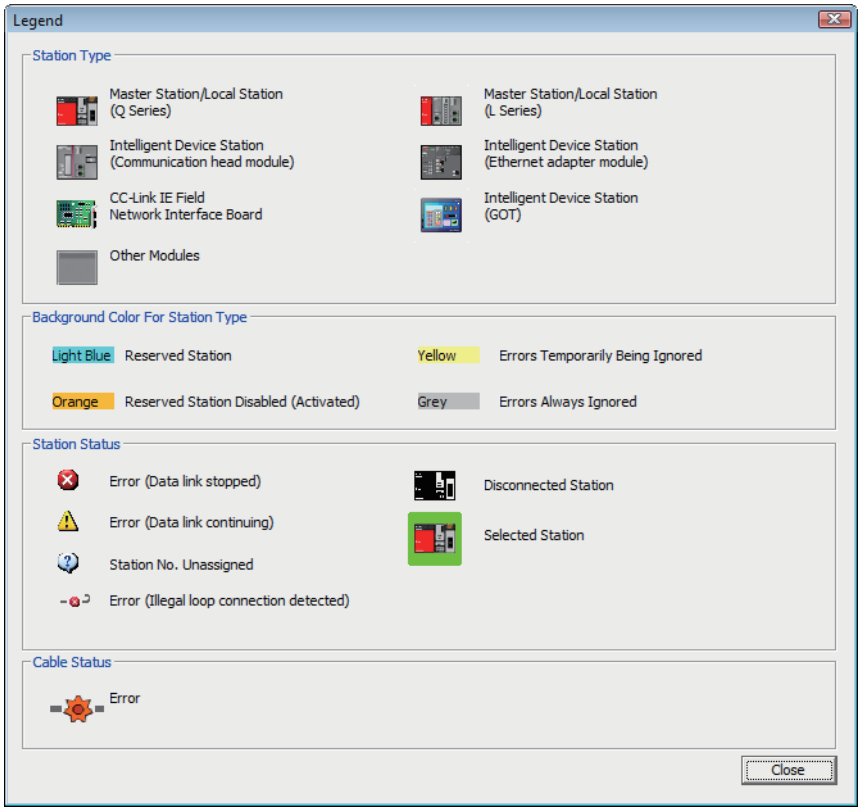
*1 : Not displayed when the connected station is an Ethernet adapter module.

Screen button

- Change Module... **(Not supported by communication head module)**
  Displays the "Select Diagnostics Destination" screen. The diagnostic target module can be changed.
  (☞ Page 152, (1) in this section)
- Communication Test...
  Displays the "Communication Test" screen. The communication route from the connected station to the communication target station can be confirmed. (☞ Page 157, Section 10.6.1)
- Cable Test...
  Displays the "Cable Test" screen. The cable connection status can be tested.
  (☞ Page 158, Section 10.6.2)
- Link Start/Stop... **(Not supported by communication head module)**
  Displays the "Link Start/Stop" screen. The data link start/stop can be performed to the specified station.
  (☞ Page 159, Section 10.6.3)
- Network Event History... **(Not supported by communication head module)**
  Displays the "Network Event History" screen. Displays the history of events that have occurred on the own station and the network, and the various network information.
  (☞ Page 160, Section 10.6.4)
- Reserved Station Function Enable... **(Not supported by communication head module)**
  Displays the "Reserved Station Function Enable" screen. The reserved stations can temporarily be disabled, and the temporarily disabled reserved stations can be enabled.
  (☞ Page 162, Section 10.6.5)
- Enable / Disable Ignore Station Errors... **(Not supported by communication head module)**
  Displays the "Temporary Error Invalid Station Setting/Restore" screen. The temporary error invalid stations can be set, and the registered temporary error invalid stations can be canceled.
  (☞ Page 163, Section 10.6.6)
- System Monitor... **(Not supported by Ethernet adapter module)**
  Displays the "System Monitor" screen. The system status of the selected station can be confirmed.
  (☞ Page 190, Section 10.9)
- Remote Operation... **(Not supported by Ethernet adapter module)**
  Displays the "Remote Operation" screen. The remote operation can be performed to the programmable controller CPU of the selected station. (☞ Page 134, Section 9.1)

- Legend...

  Displays the explanation for icons displayed on the diagnostics screen.



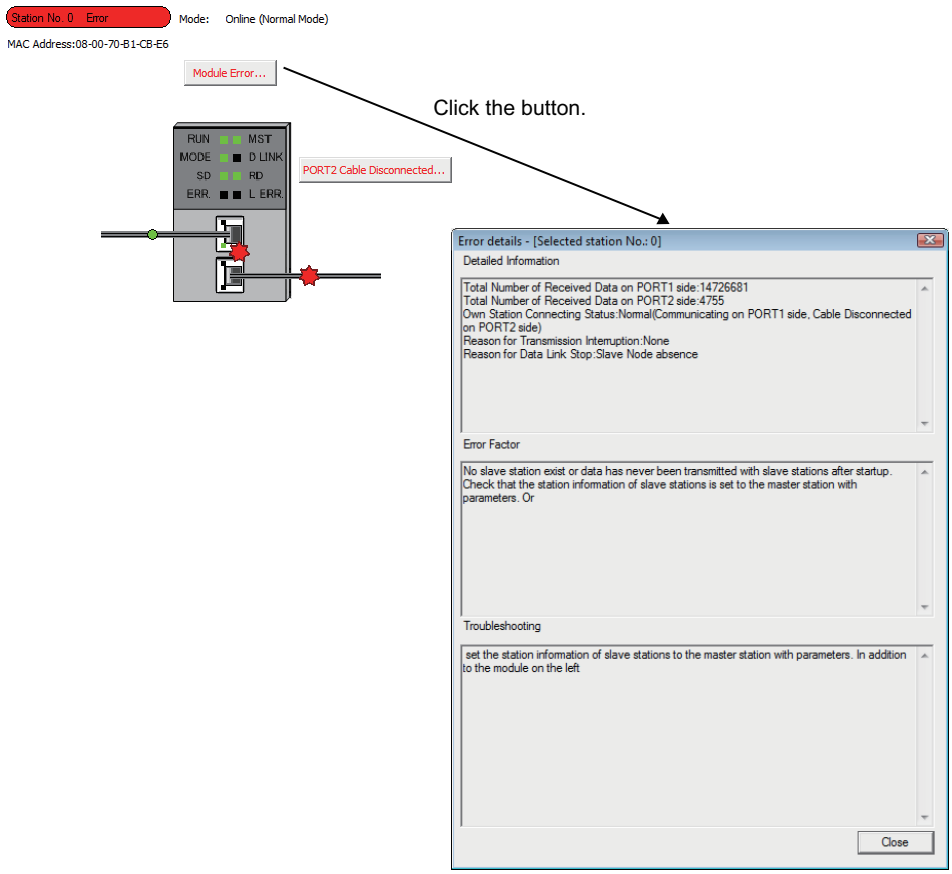
Point

- Connection destination for executing CC-Link IE Field Network diagnostics
  The communication test and the link start/stop can be executed only when the connected station is selected.
- When an unsupported CPU module is specified as the selected station
  The "System Monitor" screen and "Remote Operation" screen cannot be displayed when an unsupported CPU module is specified as the selected station.
- Communication test and link start/stop
  To execute the communication test or link start/stop, a target station must be connected using a USB cable.

(3) Display on the "Selected Station Communication Status Monitor" field

The button as shown below is displayed on the "Selected Station Communication Status Monitor" field when an error occurs on a CC-Link IE Field Network module or on a connection cable.
The detailed information, error factor, and troubleshooting can be displayed by clicking the button.

The icon ( ) is displayed as shown below when a destination station is disconnected.


Station No. 0 Error
Mode: Online (Normal Mode)
MAC Address:08-00-70-B1-CB-E6
Module Error...
Click the button.
RUN
MODE
SD
ERR.
MST
D LINK
RD
L ERR.
PORT2 Cable Disconnected...
Error details - [Selected station No.: 0]
Detailed Information
Total Number of Received Data on PORT1 side:14726681
Total Number of Received Data on PORT2 side:4755
Own Station Connecting Status:Normal(Communicating on PORT1 side, Cable Disconnected on PORT2 side)
Reason for Transmission Interruption:None
Reason for Data Link Stop:Slave Node absence
Error Factor
No slave station exist or data has never been transmitted with slave stations after startup. Check that the station information of slave stations is set to the master station with parameters. Or
Troubleshooting
set the station information of slave stations to the master station with parameters. In addition to the module on the left
Close

Point

- When the station number of the selected station is unspecified

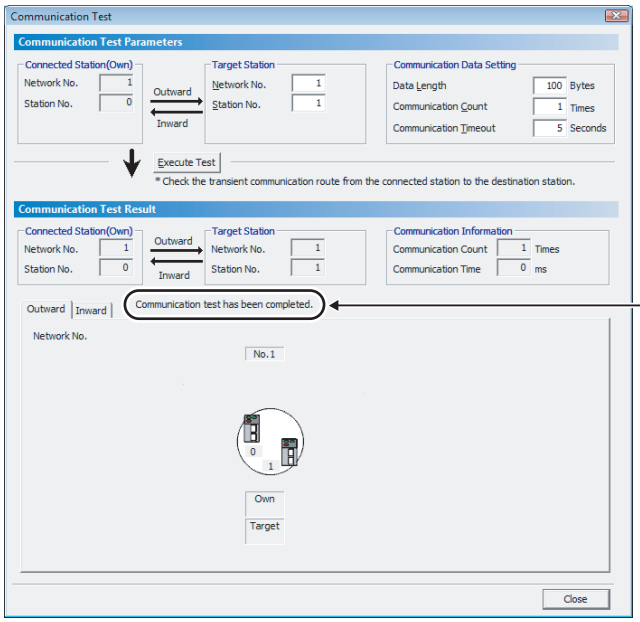
  When the station number of the selected station is unspecified, the Station No. Setting... button is displayed on "Selected Station Communication Status Monitor" field.
  To specify the station number, click this button and display the "Set Station No." screen.

10.6.1 Communication test

Perform the communication test on CC-Link IE Field Network.

Screen display

- **Click the [Communication Test...] button on the "CC IE Field Diagnostics" screen.**



Presence or absence of errors on the communication test

Operating procedure

1. **Set the items on the screen.**

Item		Description
Communication Test Contents		Set the items to execute the test.
	Connected Station (Own)	Display the network number and station number of the connected station.
	Target Station	Set the network number and station number.
	Communication Data Setting	Set the data length (1 to 900 bytes), the number of communications (1 to 100 times), and monitoring time (1 to 100 seconds) to execute the test.

2. **Click the [Execute Test] button.**

The communication test is executed according to the settings.

Display contents

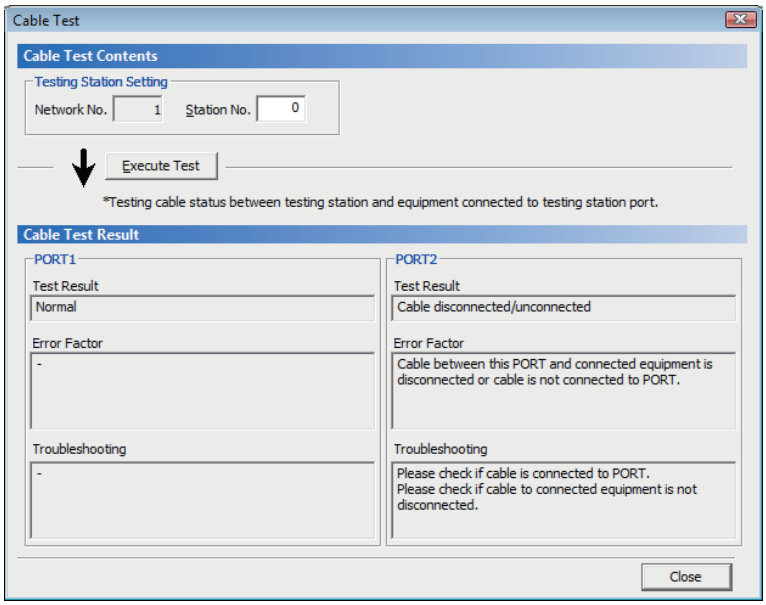
Item	Description
Communication Test Result	Display the result of inter-network communication test. Also in 'Presence or absence of errors on the communication test', display whether the communication test has been executed normally. Networks and stations routed from the own station (connected station) to the target station are displayed on the <<Outward>> tab and those routed from the target station to the own station (connected station) are displayed on the <<Inward>> tab.

10.6.2 Cable test

Test the status of the cable connections between the testing station and the devices connected to the ports of the testing station.

Screen display

- **Click the** Cable Test... **button on the "CC IE Field Diagnostics" screen.**



Display contents

Item	Description
Cable Test Result	Display the cable test result, error factor, and troubleshooting of each port.

Operating procedure

1. Set the items on the screen.

Item		Description
Cable Test Contents		–
	Testing Station Setting	Set the network number and station number of the station which executes the cable test.

2. Click the Execute Test **button.**

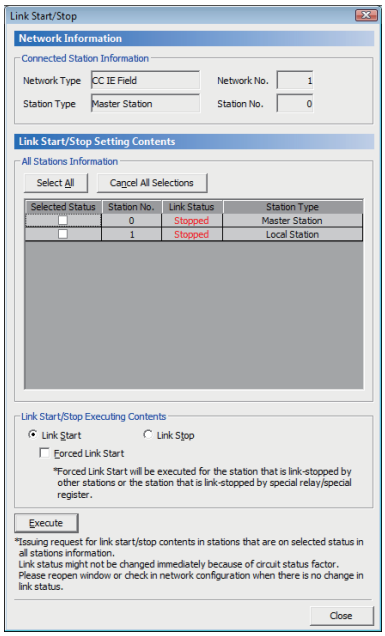
The cable test is executed on the testing station.

10.6.3 Link start/stop

Start/stop the data link of a specified station. This function can be used for debugging purposes to stop the station from receiving data from other stations and sending its own data.

Screen display

- **Click the [Link Start/Stop...] button on the "CC IE Field Diagnostics" screen.**



Display contents

Item		Description
Network Information		–
	Connected Station Information	Display the network information of the connected station.

Operating procedure

1. **Set the items on the screen.**

Item		Description
Link Start/Stop Setting Contents		–
	All Stations Information	Display the link status of all stations on the same network which are performing the data link with the connected station. Target stations of the link start/stop operation can be selected in "Selective Status".
	Link Start/Stop Executing Contents	Select "Link Start"/"Link Stop". To forcibly start the data link of a station which has been stopped by another station or a special relay/special register, select "Forced Link Start".

2. **Click the [Execute] button.**

The link start/stop is executed for all selected stations at once.

When the process is completed, "Selected Status" are cleared and the contents of "Link Status" are updated.

Screen button

- Select All

  Selects all stations displayed in the list.
- Cancel All Selections

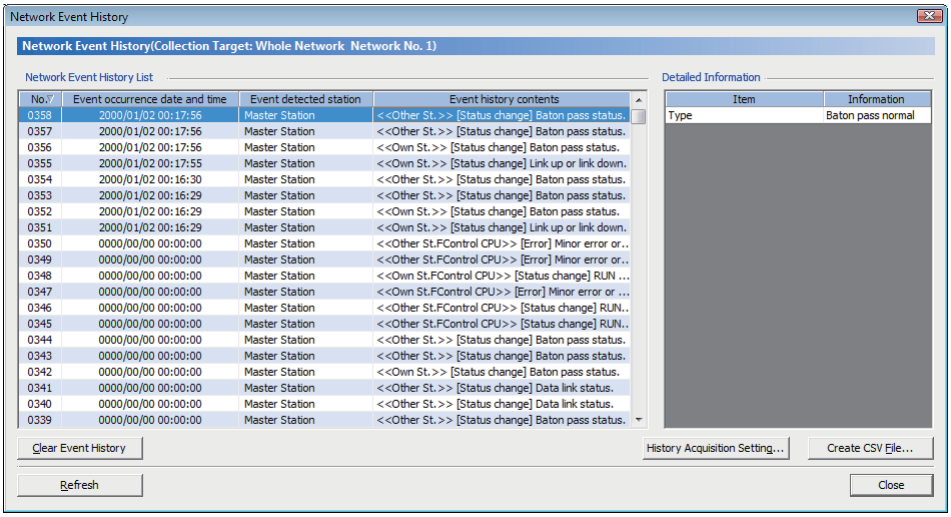
  Cancels the selection status of all stations selected in the list.

10.6.4 Network event history

Display the list of event history occurred on the own station and on the network.

Screen display

- **Click the Network Event History... button on the "CC IE Field Diagnostics" screen.**



Display contents

Item	Description
Network Event History List	Display the list of network event history. Each column can be sorted in ascending/descending order by clicking on the column header.
Detailed Information	Display the detailed information of an event selected in "Network Event History List".

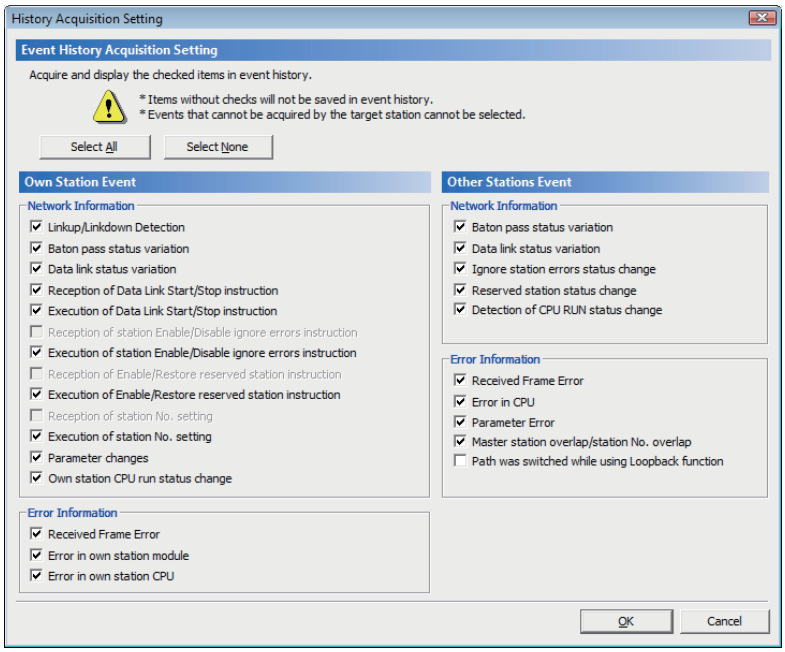
Screen button

- Clear Event History

  Clears the network event history.

- History Acquisition Setting...

  Displays the "History Acquisition Setting" screen.
  Select events to be acquired.


History Acquisition Setting
Event History Acquisition Setting
Acquire and display the checked items in event history.
* Items without checks will not be saved in event history.
* Events that cannot be acquired by the target station cannot be selected.
Select All
Select None
Own Station Event
Network Information
Linkup/Linkdown Detection
Baton pass status variation
Data link status variation
Reception of Data Link Start/Stop instruction
Execution of Data Link Start/Stop instruction
Reception of station Enable/Disable ignore errors instruction
Execution of station Enable/Disable ignore errors instruction
Reception of Enable/Restore reserved station instruction
Execution of Enable/Restore reserved station instruction
Reception of station No. setting
Execution of station No. setting
Parameter changes
Own station CPU run status change
Error Information
Received Frame Error
Error in own station module
Error in own station CPU
Other Stations Event
Network Information
Baton pass status variation
Data link status variation
Ignore station errors status change
Reserved station status change
Detection of CPU RUN status change
Error Information
Received Frame Error
Error in CPU
Parameter Error
Master station overlap/station No. overlap
Path was switched while using Loopback function
OK
Cancel

  - All events displayed in the list are selected by clicking the Select All button.
  - The selection status of all events selected in the list are canceled by clicking the Select None button.

- Create CSV File...

  Saves the network event history in CSV file format.

- Refresh

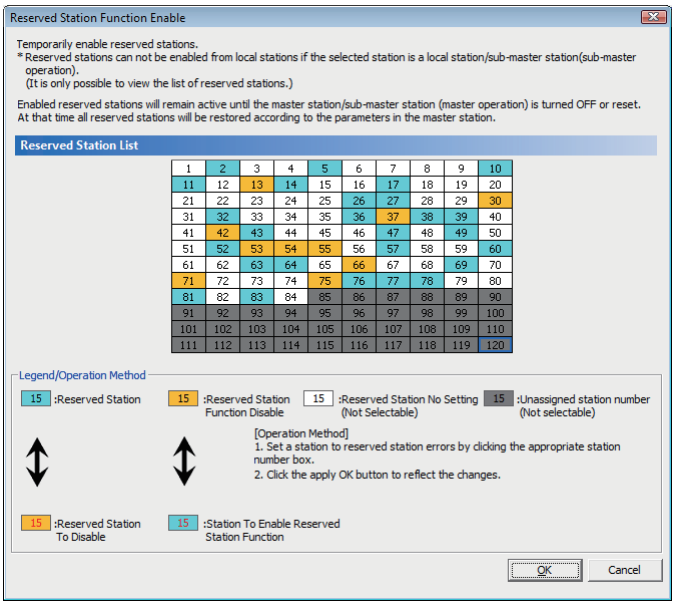
  Updates the "Network Event History List".

10.6.5 Reserved station function enable

Disable the reserved stations temporarily, and enabling the temporarily disabled reserved station.
This function cannot be performed when the connected station is a local station.

Screen display

- **Click the** Reserved Station Function Enable... **button on the "CC-Link IE Field Diagnostics" screen.**


Reserved Station Function Enable
Temporarily enable reserved stations.
* Reserved stations can not be enabled from local stations if the selected station is a local station/sub-master station(sub-master operation).
(It is only possible to view the list of reserved stations.)
Enabled reserved stations will remain active until the master station/sub-master station (master operation) is turned OFF or reset.
At that time all reserved stations will be restored according to the parameters in the master station.
Reserved Station List
Legend/Operation Method
15 :Reserved Station
15 :Reserved Station Function Disable
15 :Reserved Station No Setting (Not Selectable)
15 :Unassigned station number (Not selectable)
[Operation Method]
1. Set a station to reserved station errors by clicking the appropriate station number box.
2. Click the apply OK button to reflect the changes.
15 :Reserved Station To Disable
15 :Station To Enable Reserved Station Function
OK
Cancel

Operating procedure

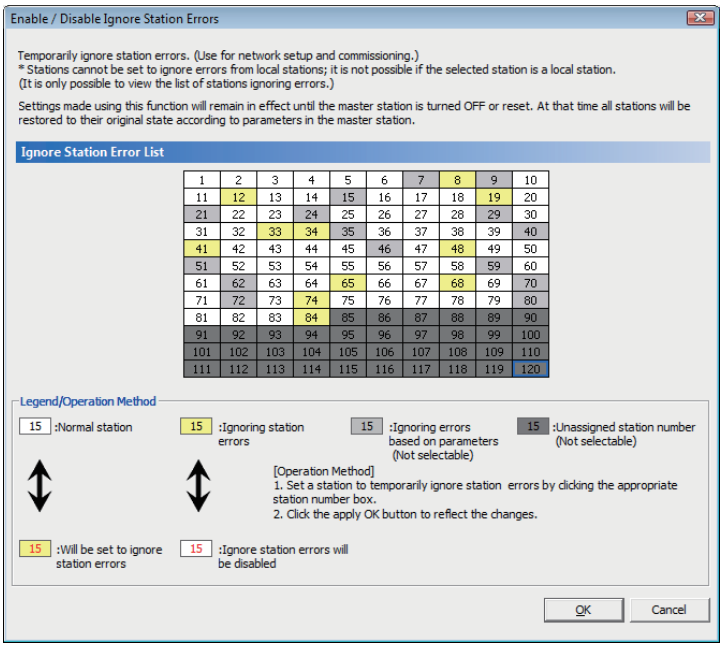
1. **Select reserved stations to be disabled temporarily/enabled from "Reserved Station List".**
2. **Click the** OK **button.**
   The selected reserved stations are disabled temporarily/enabled.
   When the process is completed, the contents of "Reserved Station List" are updated.

10.6.6 Temporary error invalid station setting/restore

Set/cancel temporary error invalid stations.
This function cannot be performed when the connected station is a local station.

Screen display

- **Click the** Enable / Disable Ignore Station Errors... **button on the "CC-Link IE Field Diagnostics" screen.**


Enable / Disable Ignore Station Errors
Temporarily ignore station errors. (Use for network setup and commissioning.)
* Stations cannot be set to ignore errors from local stations; it is not possible if the selected station is a local station.
(It is only possible to view the list of stations ignoring errors.)
Settings made using this function will remain in effect until the master station is turned OFF or reset. At that time all stations will be restored to their original state according to parameters in the master station.
Ignore Station Error List
1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20
21 22 23 24 25 26 27 28 29 30
31 32 33 34 35 36 37 38 39 40
41 42 43 44 45 46 47 48 49 50
51 52 53 54 55 56 57 58 59 60
61 62 63 64 65 66 67 68 69 70
71 72 73 74 75 76 77 78 79 80
81 82 83 84 85 86 87 88 89 90
91 92 93 94 95 96 97 98 99 100
101 102 103 104 105 106 107 108 109 110
111 112 113 114 115 116 117 118 119 120
Legend/Operation Method
15 :Normal station
15 :Ignoring station errors
15 :Ignoring errors based on parameters (Not selectable)
15 :Unassigned station number (Not selectable)
[Operation Method]
1. Set a station to temporarily ignore station errors by clicking the appropriate station number box.
2. Click the apply OK button to reflect the changes.
15 :Will be set to ignore station errors
15 :Ignore station errors will be disabled
OK
Cancel

Operating procedure

1. **Select stations to be set/canceled as temporary error invalid stations from "Error Invalid Station List".**
2. **Click the** OK **button.**
   The temporary error invalid stations are set/canceled.
   When the process is completed, the contents of "Error Invalid Station List" are updated.

10.7 Diagnosing MELSECNET

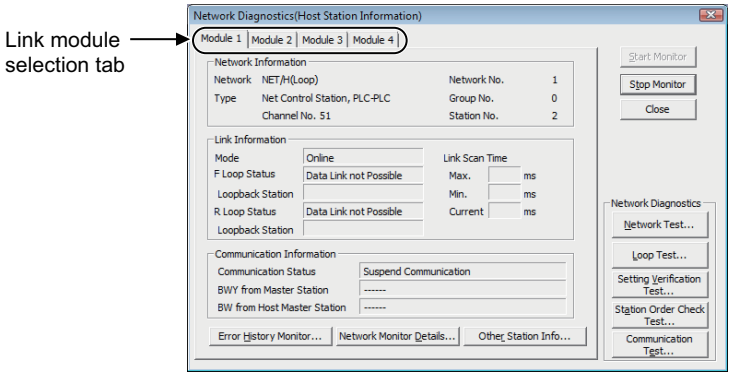
This section explains how to check the MELSECNET/10(H) status connected to the selected module.

Point

- Network to be diagnosed
  To change a network to be diagnosed, change the target station in the connection destination setting.
- Connecting via Ethernet
  The functions of network diagnostics can not be executed. Connect with a USB cable.
- MELSECNET/H (bus) connection
  - The loop test and station order test cannot be executed with the MELSECNET/H (bus) connection with the coaxial cable.
  - The loop test, setting verification test, and station order test cannot be executed with the MELSECNET/H (bus) connection with the twisted pair cable.
- Details of MELSECNET diagnostics
  Refer to the following manual.
  Q Corresponding MELSECNET/H Network System Reference Manual (PLC to PLC network)

Screen display

- **Select [Diagnostics] ⇒ [MELSECNET Diagnostics].**



Display contents

Item	Description
Link module selection tab	Switch the MELSECNET diagnostics result display screen for each link modules from 1 to 4. The information whether a link module is mounted or not is acquired from the mounted status.
Network Information	Display the network information of the selected module.
Link Information	Display the network status.
Communication Information	Display the communication status of the target network

Screen button

- Network Test...

  Displays the "Network Test" screen. (☞ Page 166, Section 10.7.1)
- Loop Test...

  Displays the "Loop Test" screen. (☞ Page 168, Section 10.7.2)
- Setting Verification Test...

  Displays the "Setting Confirmation Test" screen. (☞ Page 169, Section 10.7.3)
- Station Order Check Test...

  Displays the "Station Order Check Test" screen. (☞ Page 171, Section 10.7.4)
- Communication Test...

  Displays the "Communication Test" screen. (☞ Page 172, Section 10.7.5)
- Error History Monitor...

  Displays the "Error History Monitor" screen. (☞ Page 174, Section 10.7.6)
- Network Monitor Details...

  Displays the "Network Monitor Details" screen. (☞ Page 176, Section 10.7.7)
- Other Station Info...

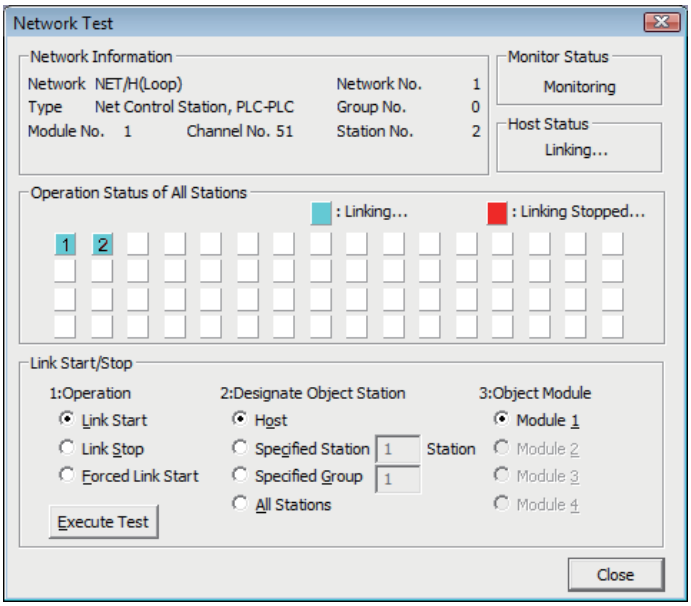
  Displays the "Other Station Information" screen. (☞ Page 177, Section 10.7.8)

10.7.1 Network test

Perform link start/stop (cyclic transmission stop/restart) on the host station, specified station, and all stations in MELSECNET/10(H).
Use this function to avoid receiving data from another stations or to avoid sending data from host station when starting up (debugging) the system.

Screen display

- **Click the** Network Test... **button on the "MELSECNET Diagnostics" screen.**



Display contents

Item	Description
Network Information	Display the network information on the host station of the selected module.
Monitor Status	Display the current monitor status.
Host Status	Display the operating status of the host station for the selected module.
Operation Status of All Stations	Display the link status of all stations on the tested network.

Operating procedure

1. **Set the items on the screen.**

Item			Description
Link Start/Stop			Set the items to execute the test.
	Operation	Link Start	• Select this to start the station that was stopped by the host station. • The station that was stopped by another station cannot be started.
		Link Stop	Select this to stop a station from the host/another station.
		Forced Link Start	• Select this to forcibly perform the link start on a station stopped by the host station or another station, or to forcibly perform the link start on a station to which the link stop is performed by special relay/special register. However, forced start in units of stations is not possible while all stations are stopped. • To check whether the station is stopped by stop specification of all stations, check SW0000. • This function cannot be executed when the MELSECNET/10(H) board is used. • The route via A series-compatible E71/QE71 is not supported by Setting/monitoring tools for the C Controller module.
	Designate Object Station		Specify the object station of the network test.
	Object Module		Select the object module of the network test.

2. **Click the** Execute Test **button.**

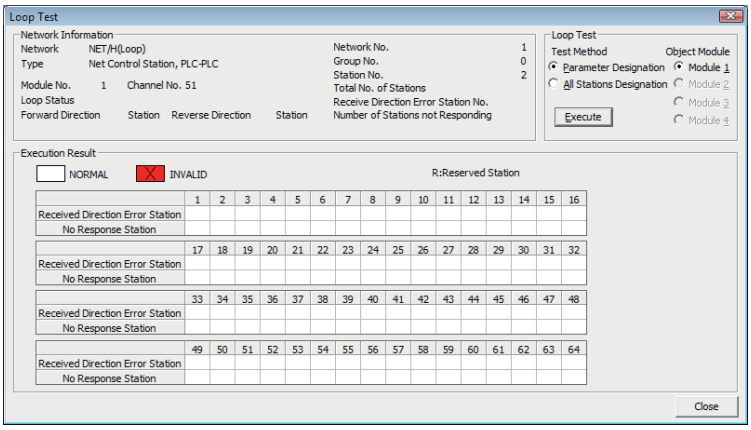
The network test is executed according to the settings.

10.7.2 Loop test

Check the loop status of MELSECNET/10(H).
Use this function to perform the loop test in the forward loop/reverse loop status with the completion of the optical loop system wiring.
Wiring status of data link cables (IN/OUT) can be checked.

Screen display

- **Click the Loop Test... button on the "MELSECNET Diagnostics" screen.**



Display contents

Item	Description
Network Information	Display the network information on the host station of the selected module.
Execute Results	Display the number of stations and the result (normal/invalid, reserved station: R) of loop test.

Operating procedure

1. **Set the items on the screen.**

Item			Description
Loop Test			Set the items to execute the test.
	Test Method	Parameter Designation	Select this to test all the (slave) stations specified by the network parameter (except for reserved stations). All stations are tested, if network parameter does not exist.
		All Stations Designation	Select this to test all stations.
	Object Module		Select the module for which loop test is executed.

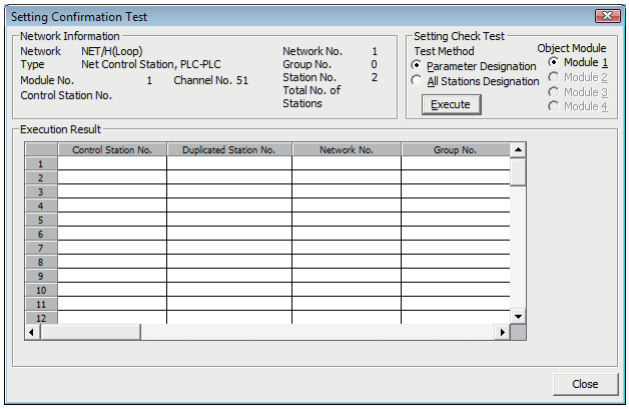
2. **Click the Execute button.**
The loop test is executed according to the settings.

10.7.3 Setting verification test

Check the status of the station number, network number, and group number set for each station.
Use this function to check overlaps of control stations or station numbers, or whether the network number set to the station to which Setting/monitoring tools for the C Controller module is connected matches with the network number set in the network parameter of host station.

Screen display

- **Click the Setting Verification Test... button on the "MELSECNET Diagnostics" screen.**



Display contents

Item		Description
Network Information		Display the network information on the host station of the selected module.
Execute Results		Display the test result.
	Station No.	Display the station number of the stations for which the setting verification test was executed. Up to 64 stations are displayed.
	Control Station No.	Display "○" symbol at the target station if control station is set at two or more places.
	Duplicated Station No.	Display "○" symbol at the target station if the same station number is set at two or more places.
	Network No.	Display the network number of the stations for which the setting verification test was executed. If the network number differs from that of the host station, it is identified by red.
	Group No.	Display the group number of the stations for which the setting verification test was executed. The station in error is blank.
	Reserved Station	Display "○" symbol for the station reserved by parameter setting. (When "Parameter Designation" is set in the test execution method.)
	Error Station	Display "○" symbol for the station when it is reserved by parameter setting or if a module is faulty in all station specification.
	Network Type Error Station	Display "○" symbol for the station where the parameter setting and the actual connection type disagree.

Operating procedure

1. **Set the items on the screen.**

Item			Description
Setting Check Test			Set the items to execute the test.
	Test Method	Parameter Designation	Select this to test all the (slave) stations specified by the network parameter (except for reserved stations). All stations are tested, if network parameter does not exist.
		All Stations Designation	Select this to test all stations.
	Object Module		Select the module for which setting verification test is executed.

2. **Click the** Execute **button.**

The setting verification test is executed according to the settings.

Point

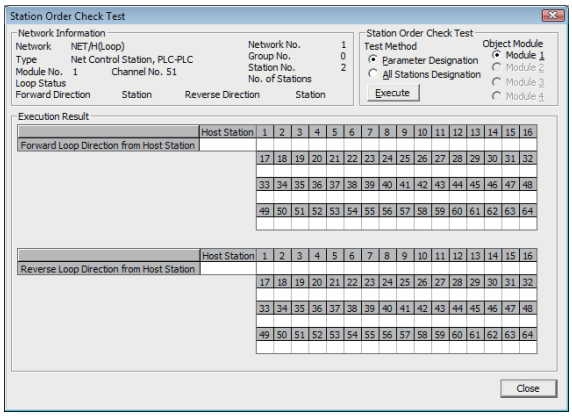
- Considerations for executing the test
  The test cannot be executed to multiple stations simultaneously.
  If executed, cyclic transmission stops.

10.7.4 Station order check test

Check the station number of the connected stations in the optical loop system of MELSECNET/10(H).

Screen display

- **Click the [Station Order Check Test...] button on the "MELSECNET Diagnostics" screen.**



Display contents

Item	Description
Network Information	Display the network information on the host station of the selected module. The loop status indicates the forward/reverse loop, forward loop, reverse loop or loopback status. "No. of Stations" indicates the number of stations that have been checked, including the reserved station.
Execute Results	Display the station number in "Forward Loop Direction from Host Station" and "Reverse Loop Destination from Host Station". In the loopback status, the test is executed only in "Forward Loop Direction from Host Station". The number for the reserved station is not displayed.

Operating procedure

1. **Set the items on the screen.**

Item			Description
Station Order Check Test			Set the items to execute the test.
	Test Method	Parameter Designation	Select this to test all the (slave) stations specified by the network parameter (except for reserved stations). All stations are tested, if network parameter does not exist.
		All Stations Designation	Select this to test all stations.
	Object Module		Select the module for which station order check test is executed.

2. **Click the [Execute] button.**

The station order check test is executed according to the settings.

Point

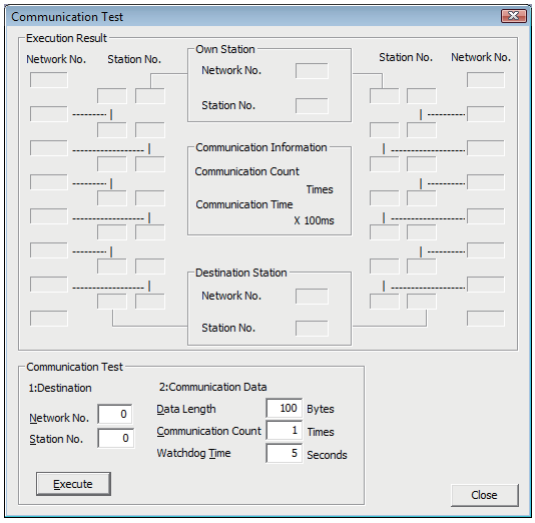
- Considerations for executing the test
  The test cannot be executed to multiple stations simultaneously.
  If executed, cyclic transmission stops.

10.7.5 Communication test

Perform the communication test between networks on MELSECNET/10(H).
Use this function to check whether communication can be performed between the host station and the communication target.
Especially, when the communication target is located on another network, the routing parameter setting can be checked by the relayed network numbers and station numbers displayed on the screen.

Screen display

- **Click the** Communication Test... **button on the "MELSECNET Diagnostics" screen.**



Display contents

Item	Description
Execute Results	Display the result of communication test executed between networks.

Operating procedure

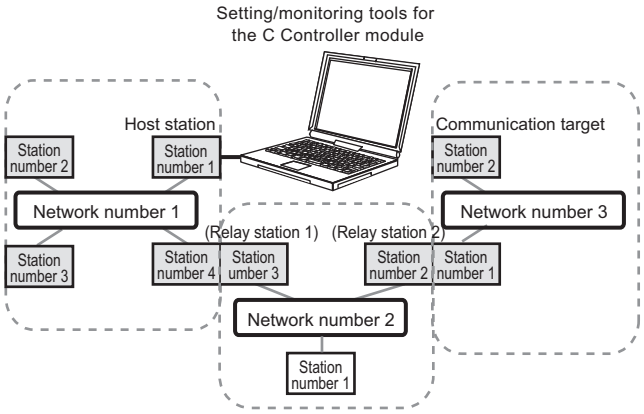
1. **Set the items on the screen**

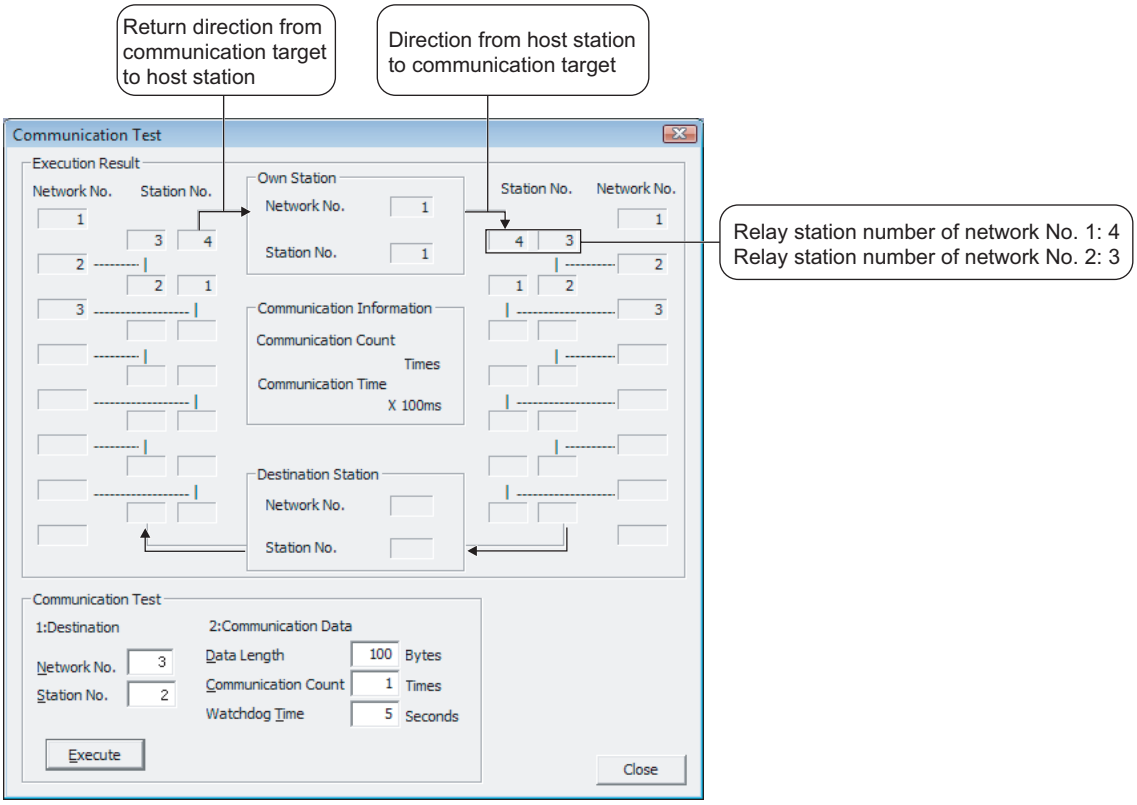
Item		Description
Communication Test		Set the items to execute the test.
	Destination	Set the network number and station number.
	Communication Data	Set the data length (1 to 900 bytes), number of communications (1 to 100 times), and monitoring time (1 to 100 seconds) to execute the test.

2. **Click the** Execute **button.**
The communication test is executed according to the settings.

(1) Example of communication test

The following shows an example of the communication test between the host station (network number 1, station number 1) and the communication target (network number 3, station number 2) with the network configuration described below.



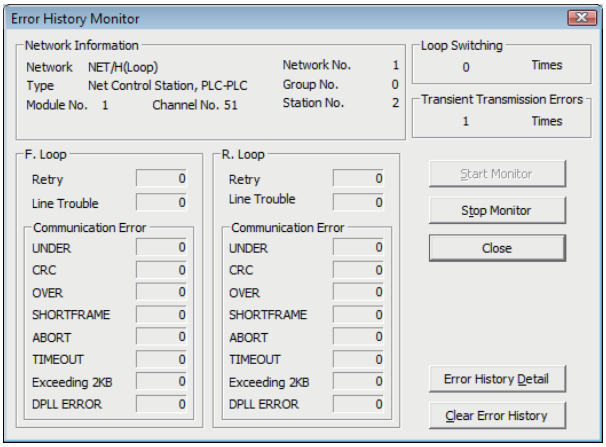


10.7.6 Error history monitoring

Display the error history of MELSECNET/10(H).

Screen display

- **Click the** Error History Monitor... **button on the "MELSECNET Diagnostics" screen.**



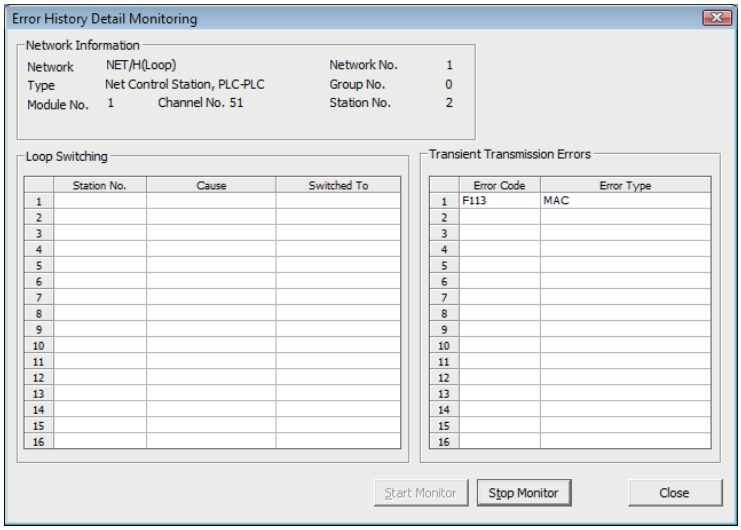
Display contents

Item	Description
Network Information	Display the network information of the selected host station.
Loop Switching	Display the number of times that the loop is switched.
Transient Transmission Errors	Display the number of occurrences of transient transmission error.
F.Loop/R.Loop	Display the items during monitoring.

Screen button

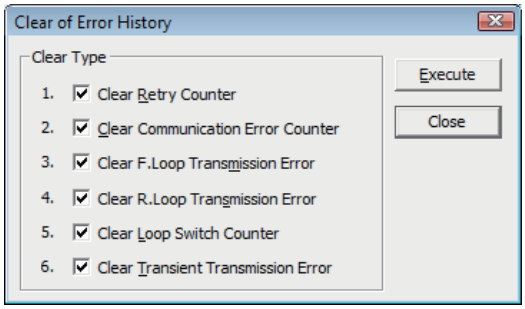
- Error History Detail

Displays the "Error History Detail Monitoring" screen that lists the details of loop switching and transient transmission error.



- Clear Error History

Displays the "Clear of Error History" screen. Select the items to be cleared and click the Execute button.

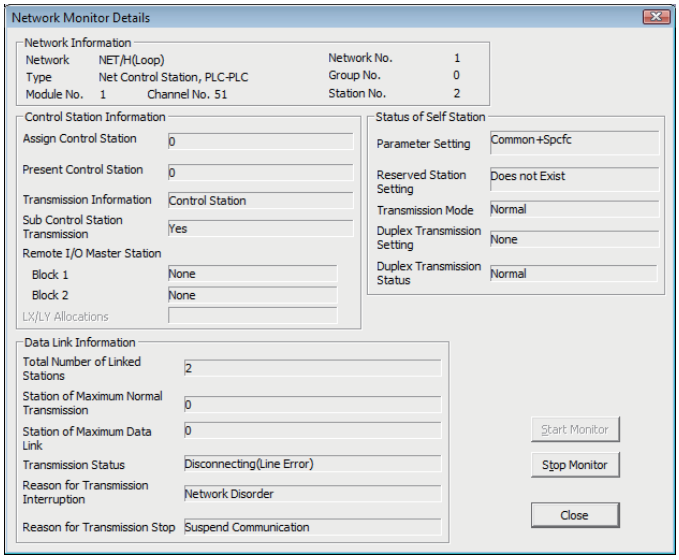


10.7.7 Network monitor details

Display the network line status of MELSECNET/10(H).

Screen display

- **Click the Network Monitor Details... button on the "MELSECNET Diagnostics" screen.**



Display contents

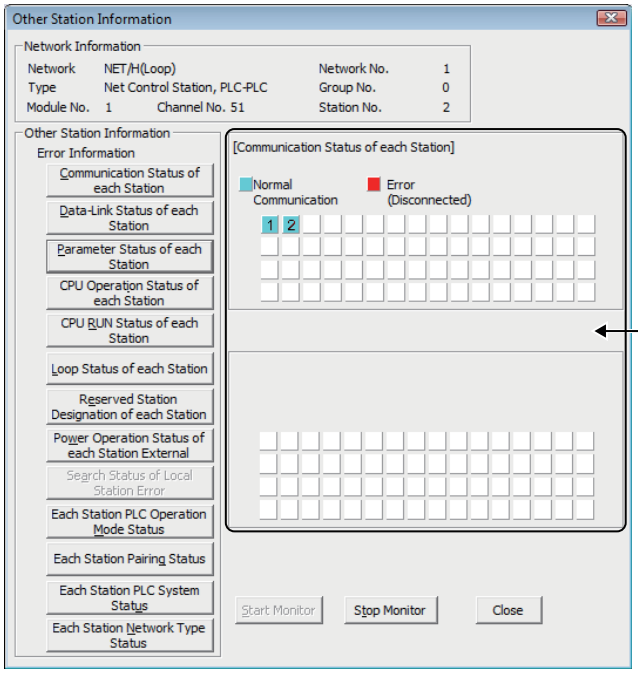
Item	Description
Network Information	Display the network information of the selected host station.
Control Station Information	Display the control station information.
Data Link Information	Display the data link information.
Status of Self Station	Display the host station status.

10.7.8 Monitoring other station information

Monitor other station connected to MELSECNET/10(H).

Screen display

- **Click the** Other Station Info... **button on the "MELSECNET Diagnostics" screen.**


Other Station Information
Network Information
Network NET/H(Loop)
Network No. 1
Type Net Control Station, PLC-PLC
Group No. 0
Module No. 1 Channel No. 51
Station No. 2
Other Station Information
Error Information
Communication Status of each Station
Data-Link Status of each Station
Parameter Status of each Station
CPU Operation Status of each Station
CPU RUN Status of each Station
Loop Status of each Station
Reserved Station Designation of each Station
Power Operation Status of each Station External
Search Status of Local Station Error
Each Station PLC Operation Mode Status
Each Station Pairing Status
Each Station PLC System Status
Each Station Network Type Status
[Communication Status of each Station]
Normal Communication
Error (Disconnected)
1 2
Start Monitor
Stop Monitor
Close
Error details display field

Display contents

Item	Description
Network Information	Display the network information of the selected host station.
Other Station Information	Display detailed information on the error details display field when an item button is clicked. • "ERR" is displayed on the error information display field if a faulty station or a stop station is detected. • "RSV" is displayed on the error information display field if a reserved station exists. • "PWR" is displayed on the error information display field if a power is supplied to a module with external power supply.
Error details display field	Display the status of each station for the items selected in "Other Station Information".

The table below shows the items that can be selected in "Other Station Information".

	PLC to PLC network				Remote I/O network	
	Control station		Normal station		Master station	
	Loop	Bus	Loop	Bus	Loop	Bus
Communication Status of each Station	○	○	○	○	○	○
Data-Link Status of each Station	○	○	○	○	○	○
Parameter Status of each Station	○	○	×	×	○	○
CPU Operation Status of each Station	○	○	○	○	○	○
CPU RUN Status of each Station	○	○	○	○	×	×
Loop Status of each Station	○	×	○	×	○	×
Reserved Station Designation of each Station	○	○	○	○	○	○
Power Operation Status of each Station External	○	×	○	×	○	×
Search Status of Local Station Error	×	×	×	×	×	×
Each Station PLC Operation Mode Status	○	○	○	○	×	×
Each Station Pairing Status	○	○	○	○	×	×
Each Station PLC System Status	○	○	○	○	×	×
Each Station Network Type Status	○	○	○	○	×	×

○: Applicable ×: Not applicable (grayed out)

10.8 Diagnosing CC-Link and CC-Link/LT

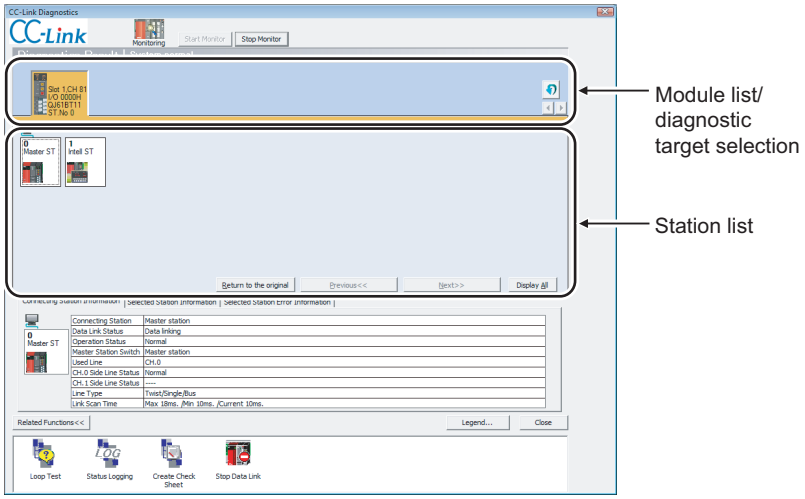
This section explains how to monitor the network information of each station, diagnosing the network status, and testing.

10.8.1 Monitoring line (host station/other stations)

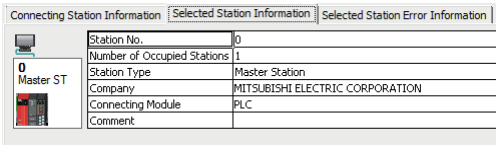
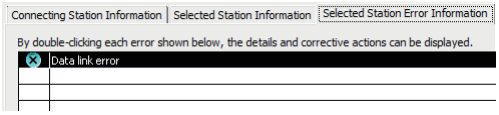
Monitor host station line/another station line in CC-Link or CC-Link/LT.

Screen display

- **Select [Diagnostics] ⇒ [CC-Link Diagnostics].**



Display contents

Item	Description
Diagnostics Result	Display the number of all errors/warnings being occurring in the modules.
Module list/diagnostic target selection	Display CC-Link and CC-Link/LT modules exist in the connected station. The number of errors (errors and warnings) is also displayed. The diagnostic target can be changed by clicking a desired module.
Station list	Display the icons of stations configuring the CC-Link network. In the detail display, the 33rd station and later are displayed by clicking the Next>> button. The display can be switched by the Display All / Detail Display button. The information of all stations are displayed on the screen at once in the all-station display. Click the Legend... button to check the description of each icon.
<<Connecting Station Information>>	Display such as the data link status of the connecting station (host station).
<<Selected Station Information>>	Display such as the data link status of the station (another station) selected in the station list. For details of the company name, refer to the following section. ☞ Page 183, (2) in this section 
<<Selected Station Error Information>>	Display the error information of the station selected in the station list. 

Screen button

-

  Updates the module list/diagnostic target list.

-

  Switches modules to be displayed in units of eight modules.

- Return to the original

  Reset the icon layout in the station list to the station number order.
  For the layout edit of the station list, refer to Point in this section.

- Previous<< / Next>>

  Switches the screen of the station list.
  When an error or warning exists on each screen, the icon indicating the error information is displayed on the button.

- Display All / Detail Display

  Switches the all-station display and detail display.

- Related Functions<< / Related Functions>>

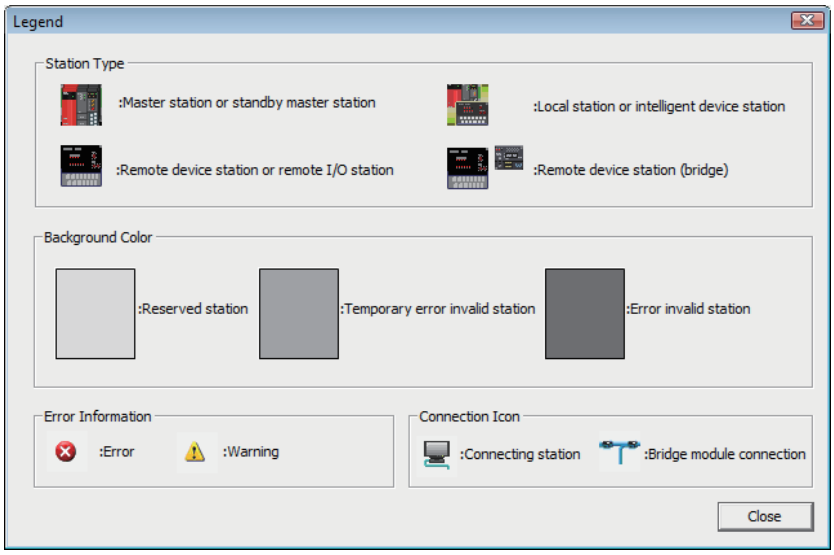
  Displays/hides the related function buttons.
  For details of related functions, refer to the following sections.

  - Loop Test*1 ☞ Page 184, Section 10.8.2
  - Status Logging ☞ Page 185, Section 10.8.3
  - Create Check Sheet ☞ Page 187, Section 10.8.4
  - Start Data Link/Stop Data Link*1 ☞ Page 189, Section 10.8.5

*1 : Not supported by remote I/O module.

- Legend...

  Displays the explanation for icons displayed on the diagnostics screen.
  For setting/canceling the temporary error invalid station being displayed, refer to the following section.
  ☞ Page 183, (1) in this section

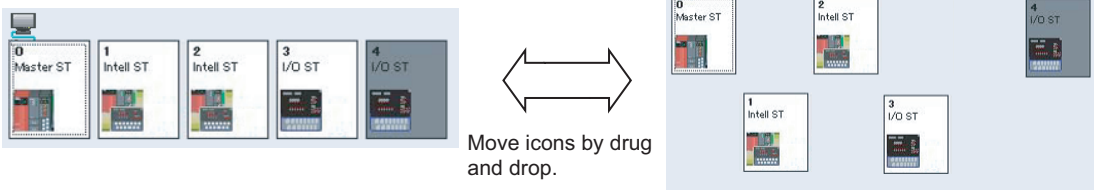


Point

- Update of the number of errors and warnings displayed in "Diagnostics Result"
  During the monitoring, the number of errors/warnings being occurring on the network of a module selected in "Module list/diagnostic target selection" is only updated.

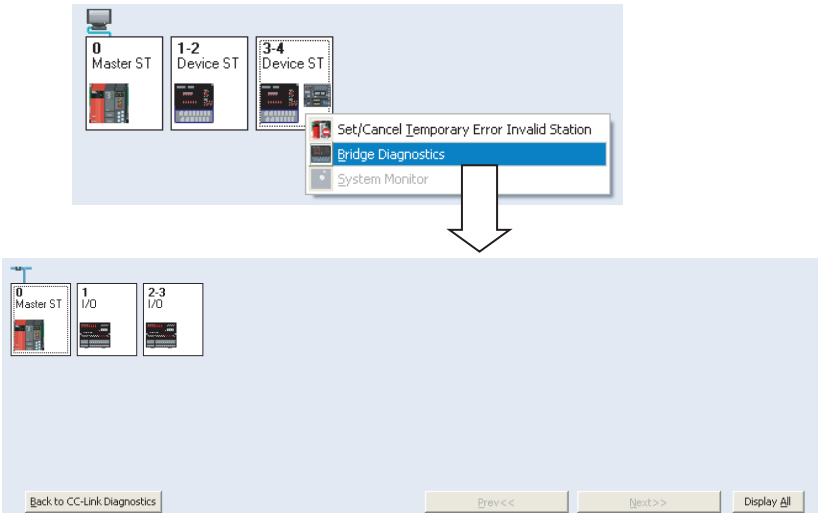
  To also update the number of errors/warnings on other modules, update the module list using .

- Editing layout of station list
  Icons in the station list can be moved and allocated freely by the drag-and-drop operation.



- Diagnostic target modules
  In the CC-Link system configuration, only QJ61BT11 and QJ61BT11N are diagnosed.
  In the CC-Link/LT system configuration, only QJ61CL12 is diagnosed.

- Diagnosing CC-Link bridge modules
  When a CC-Link bridge module is selected in the station list, the bridge diagnostics can be executed by right-clicking it and selecting [Bridge Diagnostics] from the shortcut menu.



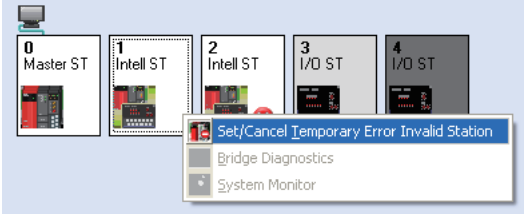
  To return to the "CC-Link Diagnostics" screen, click the Back to CC-Link Diagnostics button.

- Considerations for executing each function
  Do not execute the following functions by a sequence program and peripheral at the same time. If executed, they may not be executed correctly.
  - Start data link/stop data link
  - Set/cancel temporary error invalid station
  - Loop test
  - Obtain transmission speed setting (including the acquisition of the transmission speed setting in the Check Sheet Creation Wizard (Page 187, Section 10.8.4))

- Restrictions on bridge diagnostics, loop test, and check sheet creation
  Bridge diagnostics, loop test, and check sheet creation can be performed only when the connected station is a master station.

(1) Setting/canceling temporary error invalid station

Replacing a module in online is possible without detecting an error in the corresponding remote station.
To set the temporary error invalid station, select the desired station in the station list and right-click it, and select [Set/Cancel Temporary Error Invalid Station] from the shortcut menu.
If multiple stations are set as occupied stations, specify the start station number of each occupied station for the temporary error invalid station. If setting is made for a station that is not the start station in actual assignment, invalid setting is ignored.
In addition, do not set the temporary error invalid station by a sequence program or peripheral at the same time. If set, the temporary error invalid station may not be set correctly.



(2) Company names in other station information

(a) The field displays the company name or manufacturer code of the device connected in CC-Link.

(b) The field displays the manufacturer code if company name is not entered in the manufacturer code list.

(c) The manufacturer code list (partner.dat) is saved in the following folder and can be edited using text editor available in market.

C:/MELSEC/CCPU4/DnaviZeroCCPU/DnaviSatellite/CCLink

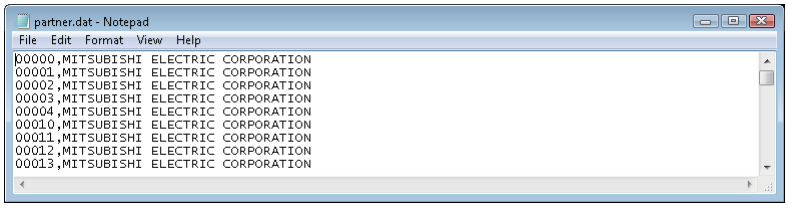
(d) The company names can be edited on the diagnostics screen, however, changes are not applied to partner.dat.

For some manufacturers, manufacturer codes are not listed. Edit the file according to the following file format specifications.

	Manufacturer code	Company name
Max. number of characters	5	255
Usable characters*1	0 to 9	• Alphanumeric characters • Symbols
Remarks	Manufacturer code other than 5 digits is ignored.	Display differs depending on the screen width. With small fonts, up to 75 characters are displayed, characters exceeding the limit are not displayed.

*1 : If "," is used in a company name, enclose the company name by double quotations (" ").
Example: "xxxxx Co., Ltd"

The following is an example of partner.dat displayed using a text editor.



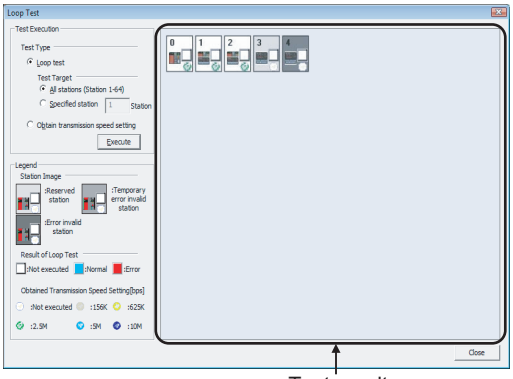
10.8.2 Loop test/transmission speed test

Check operating status of lines for all stations or specified stations, and checking the transmission speed settings of all stations.

Screen display

- **Double-click**

on the "CC-Link Diagnostics" screen.



Operating procedure

1. **Set the items on the screen.**

Item		Description
Test Execution		–
	Loop Test	Execute the loop test according to the specification of "All Stations" or "Selected Station No.". Setting is not possible when CC-Link/LT is selected. All Stations: Select this to execute the test for all 64 stations. Selected Station No.: Select this to execute the test for the specified stations. To specify a station, specify the start address of an occupied station. <Example> When four occupied stations and two occupied stations are connected 4 stations occupied 2 stations occupied 1 2 3 4 5 6 7 · · · · · "1" is specified "5" is specified If 2, 3, 4, or 6 is specified, the station becomes faulty station.
	Obtain transmission speed setting	Obtain transmission speed settings of all stations.

2. **Click the** Execute **button.**

The loop test/acquisition of the transmission speed setting is executed and the result is displayed in the 'Test result'.

Check 'Legends' for the descriptions of the icons displayed in the 'Test result'.

Point

- Considerations for executing the test
  Do not execute the loop test/acquisition of the transmission speed setting by a peripheral at the same time. If executed, the loop test/acquisition of the transmission speed setting may not be executed correctly.
  In addition, when executing the acquisition of the transmission speed setting, do not execute the acquisition of the transmission speed setting in the Check Sheet Creation Wizard (Page 187, Section 10.8.4) at the same time.

10.8.3 Displaying logs of station information (status logging)

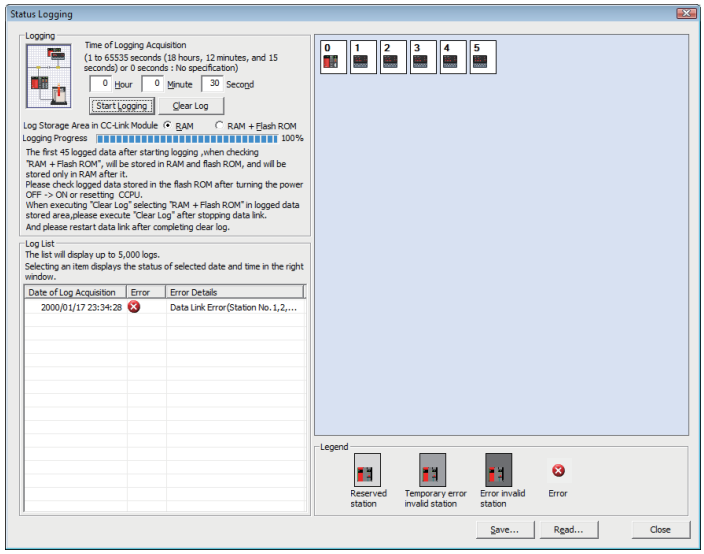
Collect logs of the station information (the data link status of other stations, date of acquisition).

Screen display

- **Double-click**

on the "CC-Link Diagnostics" screen.

<With a serial number whose first five digits are "12032" or higher>


Status Logging
Logging
Time of Logging Acquisition
(1 to 65535 seconds (18 hours, 12 minutes, and 15 seconds) or 0 seconds : No specification)
0 Hour
0 Minute
30 Second
Start Logging
Clear Log
Log Storage Area in CC-Link Module
RAM
RAM + Flash ROM
Logging Progress
100%
The first 45 logged data after starting logging ,when checking "RAM + Flash ROM", will be stored in RAM and flash ROM, and will be stored only in RAM after it.
Please check logged data stored in the flash ROM after turning the power OFF -> ON or resetting CCPU.
When executing "Clear Log" selecting "RAM + Flash ROM" in logged data stored area,please execute "Clear Log" after stopping data link.
And please restart data link after completing clear log.
Log List
The list will display up to 5,000 logs.
Selecting an item displays the status of selected date and time in the right window.
Date of Log Acquisition
Error
Error Details
2000/01/17 23:34:28
Data Link Error(Station No.1,2,...
0
1
2
3
4
5
Legend
Reserved station
Temporary error invalid station
Error invalid station
Error
Save...
Read...
Close

←Log data display area

Operating procedure

1. **Set the items on the screen.**

Item	Description
Logging Sampling Time	Specify the period of time to collect the log on the second time scale. The log is collected during the time of period between when the logging starts and when the specified time elapses.
Logging Storage Area in CC-Link Module*1	Specify the logging storage destination. The logs stored in the RAM of the CC-Link module are deleted when the C Controller module is power-cycled or reset. Select "RAM + Flash ROM" to leave the logs. The logs stored on the flash ROM of the CC-Link module are not deleted even when the C Controller module is power-cycled or reset.

*1 : This item is not displayed for modules with a serial number whose first five digits are "12031" or lower.

2. **Click the** Start Logging **button.**

The log is collected during the specified log collection time and displayed in "Log List".
The log displayed in "Log List" is read out from the RAM.
The log collection stops when the number of log records reaches 5000.
As to indicate the logging processing time, the elapsed time against the specified log collection time is displayed.

When '0' is specified, the log collection continues until the Stop Logging button is clicked or the number of log records reaches 5000.
The status as of the date selected in "Log List" is displayed in the "Log data display area".
Check "Legends" for the descriptions of the icons displayed in the "Log data display area".

Screen button

- Clear Log

  Clears the log in the CC-Link module.
  Also clears the log stored on a flash ROM when "RAM + Flash ROM" is selected.

- Save... / Read...

  Saves information of the log list in CSV format. Also reads out a log file saved in CSV format and displays in "Log List".

Point

- Log collection when "RAM + Flash ROM" is selected
  When "RAM + Flash ROM" is selected, the first 45 logs after starting the logging are stored in the RAM and the flash ROM of the CC-Link module, and the rest of logs are stored in the RAM only.
- Checking logs stored on a flash ROM of the CC-Link module
  The log stored on a flash ROM is transferred to a RAM when the C Controller module is turned from OFF to ON or reset.
  The log stored on the flash ROM can be displayed in "Log List" by reopening the "Status Logging" screen.
- Log collection
  In the case where Setting/monitoring tools for the C Controller module cannot always be connected, select "RAM + Flash ROM".
  The log (up to 45 records) stored on a flash ROM can be displayed when Setting/monitoring tools for the C Controller module is reconnected after the logging.
  In the case where Setting/monitoring tools for the C Controller module can always be connected, up to 5000 records of the log can be collected whichever "RAM" or "RAM + Flash ROM" is selected.

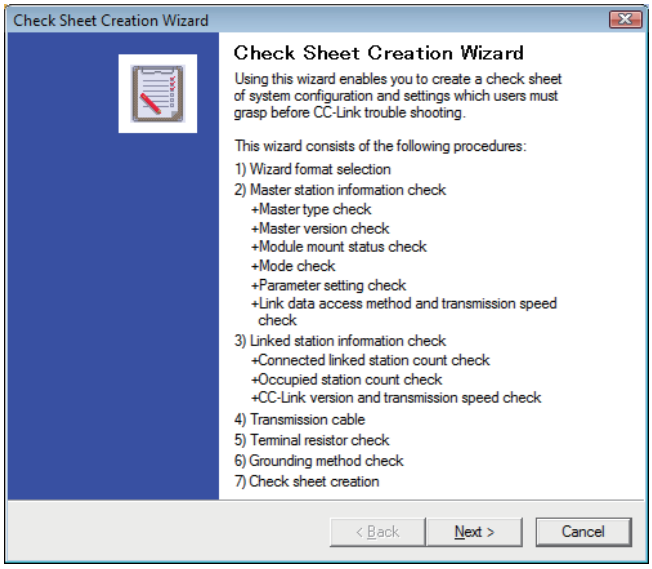
10.8.4 Creating check sheets

Create a check sheet for troubleshooting by the wizard.

Operating procedure

1. **Double-click**

on the "CC-Link Diagnostics" screen.


Check Sheet Creation Wizard
Check Sheet Creation Wizard
Using this wizard enables you to create a check sheet of system configuration and settings which users must grasp before CC-Link trouble shooting.
This wizard consists of the following procedures:
1) Wizard format selection
2) Master station information check
+Master type check
+Master version check
+Module mount status check
+Mode check
+Parameter setting check
+Link data access method and transmission speed check
3) Linked station information check
+Connected linked station count check
+Occupied station count check
+CC-Link version and transmission speed check
4) Transmission cable
5) Terminal resistor check
6) Grounding method check
7) Check sheet creation
< Back
Next >
Cancel

2. **Set the items according to terms on the screens.**

For details of setting items, refer to the following guide.

Open Field Network CC-Link Troubleshooting Guide

The created check sheet is saved in Excel format.

Point

- Considerations for checking the transmission speed
  Do not execute the check (acquisition) of the transmission speed setting by a peripheral at the same time.
  If executed, the check (acquisition) of the transmission speed setting may not be executed correctly.
- Check sheets
  "System Configuration" can be output when Excel 2000 or later is installed.

Example of a check sheet:

The following shows an example of a check sheet in case where Excel 2000 or later is installed.

	Confirmation Item		Contents	
1.	Master Station	[1]Master Type	Programmable Controller	Q24DHCCPU-V
			Master Module	QJ61BT11
		[2]Master Version	Programmable Controller	S030000000000000B
			Master Module	030820000000000B
		[3]Module Mount Status	I/O Address:	0050H
		[4]Other Network Modu	Other Network Module:	QJ61CL12
		[5]Mode	Mode Setting:	[*]Remote Net Mode([*]Ver.1/ [ ]Additional /[ ]Ver.2) / [ ]Remote I/O Net Mo
			Scan Mode:	[ ]Synchronous/[*]Asynchronous Mode
			Module Mode:	[ ]I/O mode / [ ]intelligent mode (SW8:A Series Only)
		[6]Parameter	Checking the parameter matching status between the specification and PLC	
			Parameter	Setting
			Number of PLCs	5Count
			Standby Master Station S	None
			CPU Down Drive Specific	[*]Stop/[ ]Continue
			Reserved Station	None
			Error Invalid Station	None
			Station Information	Written in the system configuration
		[7]Parameter Setting	[*]Setting/monitoring tools for the C Controller module/ [ ]Dedicated Instruction/ [ ]FROM/TO Instruction	
		[8]Link Start Method	[ ]Startup by Buffer Memory:Y6 / [ ]Startup by E2PROM:Y8 (Only QnA, A, FX Series)	
		[9]Link Data Access	[*]Auto Refresh/ [ ]Dedicated Instruction/ [ ]FROM/TO Instruction	
		[10]Transmission Speed	[ ]10M/ [ ]5M / [ ]2.5M / [ ]625k / [*]156kbps	
2.	Linked Station	[11]Connected Count	64Count	
	*:The details have been describ	[12]Station Type*	Remote I/O Station:64Count, Remote Device Station:0Count, Intelligent Device Station:0Count	
		[13]Number of Occupied	[ ]Number of occupied stations of each station(Please check it when you confirm it.)	
		[14]CC-Link Version*	[*]Ver.1 / [ ]Ver2(Expanded Cyclic Setting:[ ]1Times, [ ]2Times, [ ]4Times, [ ]8Times)	
		[15]Transmission Speed	[ ]10M/ [ ]5M / [ ]2.5M / [*]625k / [ ]156kbps	
3.	Transmission Cable	[16]Cable Type	Cable Model Name:	
		[17]Transmission Distanc	Total Extension Distance	m
		[18]Inter-Station Distanc	Distance between Short	m
4.	Terminal Resistor	[19]Resistance Value	[*]110ohm / [ ]130ohm / [ ]Not Exist	
		[20]Connected Terminal	[ ]Connection between DA-DB of terminal resistor(Please check it when you confirm it.)	
5.	Grounding	[21]FG Terminal	[ ]Grounding of FG terminal of each station(Please check it when you confirm it.)	
			Describe the installation status to "6.System Configuration" when it is not set up in each station.	

10.8.5 Starting/stopping data link

Start/stop the data link.

Operating procedure

1. **Double-click**

on the "CC-Link Diagnostics" screen.

The data link is stopped. In addition, the icon is switched to

.

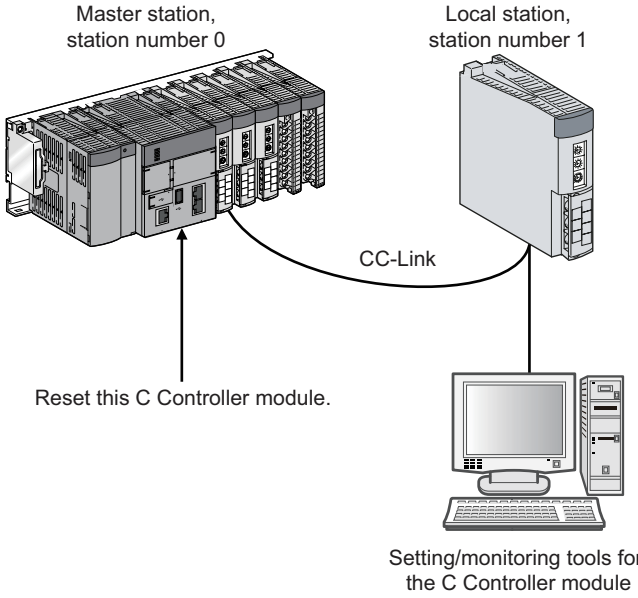
To start the data link, click

.

(1) Considerations of data link stop

Performing 'data link stop' disables data transmission from Setting/monitoring tools for the C Controller module when the personal computer is connected to a master station via CC-Link as shown in the system configuration below.

To re-establish the connection to send data from Setting/monitoring tools for the C Controller module, reset the CPU module (programmable controller CPU/C Controller module) to which the data link stop is performed and restart the data link.

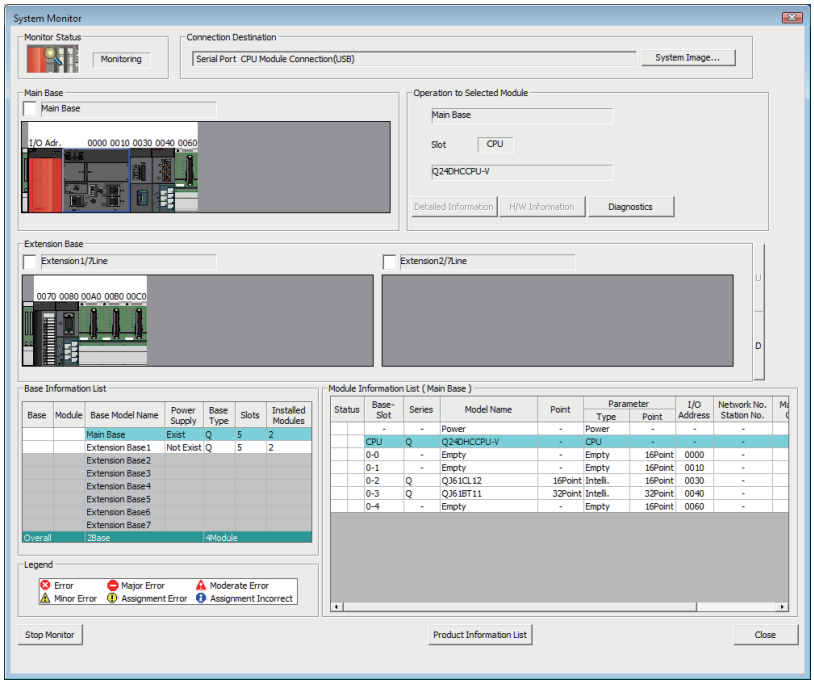


10.9 Checking System Status and Error History

This section explains how to check the error history and the status of modules that configure the system.

Screen display

- **Select [Diagnostics] ⇒ [System Monitor].**
  <With extension base unit>



Display contents

Item			Description
Monitor Status			Display the current monitor status.
Connection Channel List			Display the information of the route to the connection destination.
Main Base			Display the operating status of the module, and I/O address.
Operation to Selected Module			Display the name, slot number, and model name of the base unit to which the selected module is mounted.*1
Extension Base*2			Display the extension base unit in every two rows. The third row and later are displayed by pressing the arrow button on the right. The base unit, operating status of the module, and I/O address are displayed.
Base Information List			Display the status of each base unit.
	Base		Display the status of the base unit.
	Module		Display the error status of each module mounted to the base unit.
	Base Model Name		Display the base name set to the parameter on the C Controller module. If the parameter is not set, "Main Base", "Extension Base 1" to "Extension Base 7" are displayed.
	Power Supply		Display whether there is power supply.
	Base Type		Display the type of the base unit.
	Slots		Display the slot number.
	Installed Modules		Display the number of modules mounted to the base unit.
Module Information List			Display the information of module on the base unit where the selected module is mounted.
	Status		Display the status of each module.
	Base-Slot		Display the slot number of each module.
	Series*1		Display the series of each module.
	Model Name*1		Display the model name of each module.
	Point*1		Display the number of occupied I/O points of each module.
	Parameter	Type	Display the type of each module set to the parameter on the C Controller module. If the parameter is not set, the type of the mounted module is displayed.
		Point*1	Display the points of each module set to the parameter on the C Controller module. If the parameter is not set, the number of I/O points of the mounted module is displayed.
	I/O Address*1		Display the I/O address of each module set to the parameter on the C Controller module.
	Network No. Station No.*1		Display the network number and the station number set to each module.
	Master PLC		Display the CPU modules (programmable controller CPU, C Controller CPU) which control the other modules in the multiple CPU configuration. Other CPU modules (programmable controller CPU, C Controller CPU) and empty slots are displayed as "-".
Legend			Display the legend of the icon displayed on the screen.

*1 : "******", "–", and "**" are displayed if the module is not mounted or the parameter is different with the mounting status.

*2 : Displayed only when an extension base unit exists.

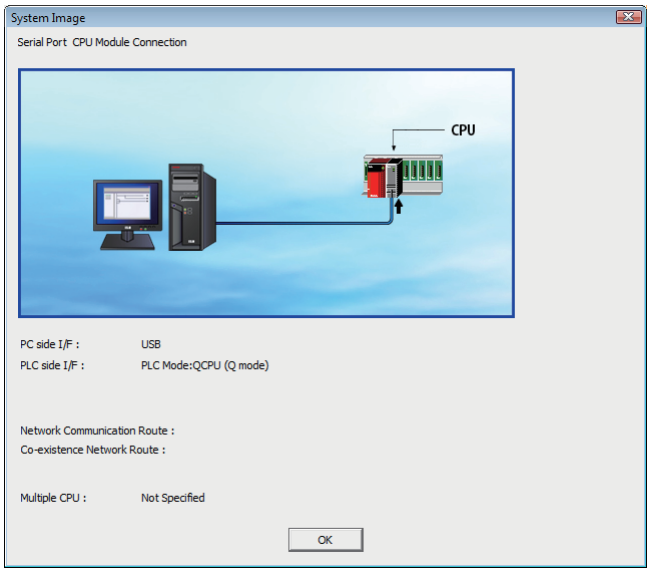
Point

- Connection Channel List
  In "Connection Channel List", the route information of the connection destination setting is displayed at all times.

Screen button

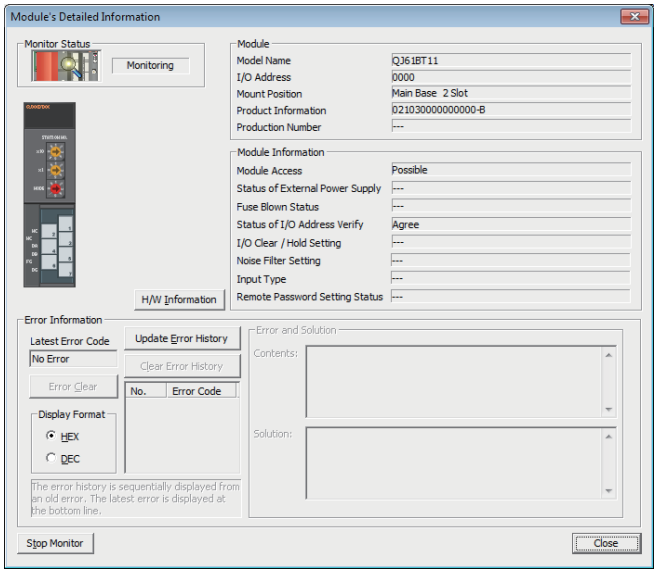
- System Image...

  Displays the illustration of the connection route.
  (☞ Page 95, Section 6.1.1)



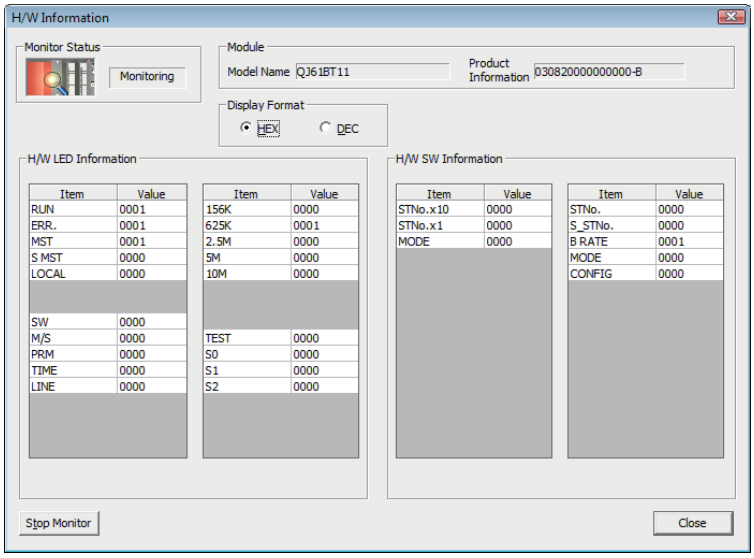
- Detailed Information

  Displays the module information of the selected module.
  The following is an example of the "Module's Detailed Information" screen when QJ61BT11 is selected.
  (☞ Page 196, Section 10.9.1)



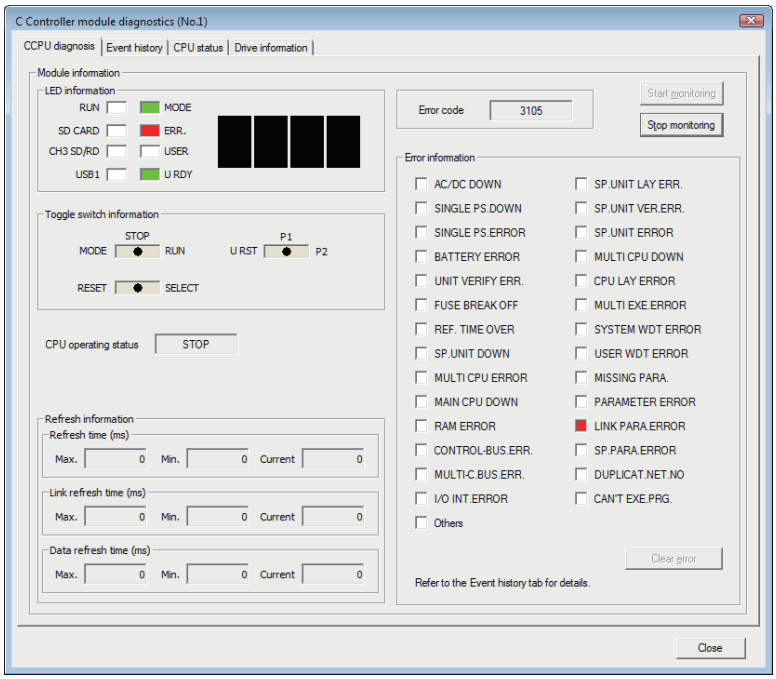
- H/W Information

Displays the hardware LED information and the hardware switch information.
The display contents of the H/W Information differ according to module version.
For details, refer to the User's Manual of each module.



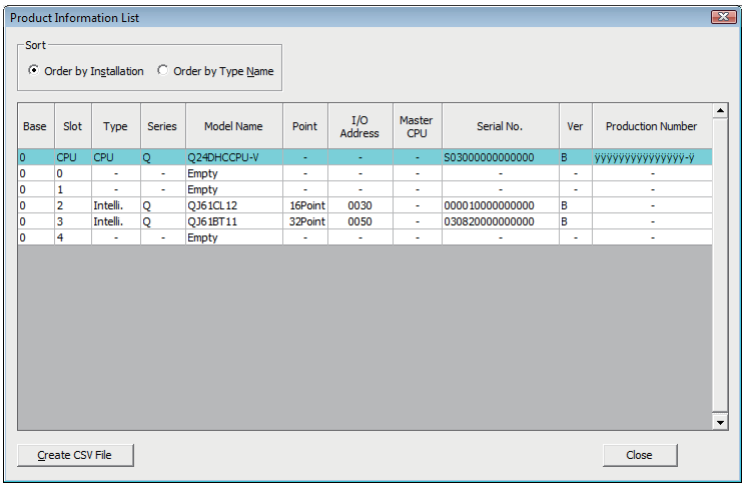
- Diagnostics

Displays the diagnostic information of the selected module.
The following is an example of the “CCPU Diagnostics" screen when the C Controller module is selected.
(☞ Page 137, Section 10.1)



- Product Information List

  Displays the product information of each module mounted to the base unit.

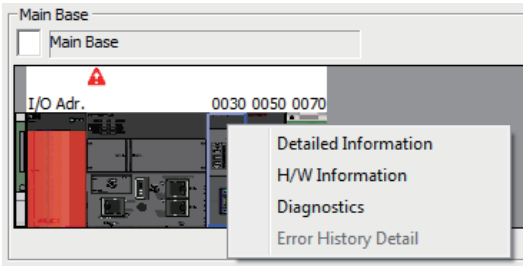

Product Information List
Sort
Order by Installation
Order by Type Name
Base
Slot
Type
Series
Model Name
Point
I/O Address
Master CPU
Serial No.
Ver
Production Number
0 CPU CPU Q Q24DHCCPU-V - - - S03000000000000 B
0 0 - - Empty - - - - - -
0 1 - - Empty - - - - - -
0 2 Intelli. Q QJ61CL12 16Point 0030 - 000010000000000 B -
0 3 Intelli. Q QJ61BT11 32Point 0050 - 030820000000000 B -
0 4 - - Empty - - - - - -
Create CSV File
Close

  - Clicking the Create CSV File button saves the product information data in CSV file format.

Point

- Operation to selected module

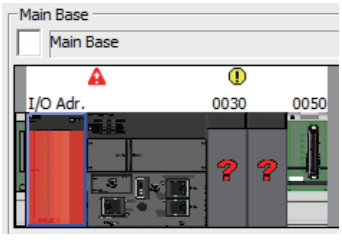
  The functions of "Operation to Selected Module" can also be executed from the shortcut menu by selecting modules from "Main Base" or "Extension Base".



- Displaying module status

  The following screen is displayed if the mounting status of the module cannot be obtained due to the incorrect parameter settings.

  Execute the system monitor function again after adjusting the parameter to the mounting status.



(1) Error icons

The following table shows the details of the error status icons of the CPU module (programmable controller CPU, C Controller module) and other modules.

Module	Icon		Error	Programmable controller CPU status
CPU module		Serious error	MAIN CPU down	RESET and others
		Moderate error	Stop error	Error in parameter and others
		Minor error	Error allowing operation	Errors in battery
		Assignment error	Assignment error	Errors such as multiple CPU setting is not set
Module		Error	H/W error	H/W errors in the base or the power supply
		Serious error	Module system error	H/W errors in modules
		Moderate error	Module error	No appropriate environment for executing the functions of modules
		Minor error	Module warning	Impropriety in programs or user's operations
		Assignment error	Assignment error	The assigning status of the module is different with the mounting status of the module. (The status that the module type and points cannot be obtained.)
		Illegal assignment	Illegal assignment	The assigning status of the module is different with the mounting status of the module. (The status that the module type and points can be obtained.)

(2) Display when mounted modules do not match with the I/O assignment setting on CCPU parameter

The following shows the "Module Information List" on the System monitor function according to the I/O assignment on CCPU parameter. If module mounting status does not match with the I/O assignment, change "I/O Assignment" of the I/O assignment setting to match with the mounting status. "*****", "–", and "**" are displayed if the module is not mounted, or the parameter is different with the mounting status.

Module Information List (Main Base)

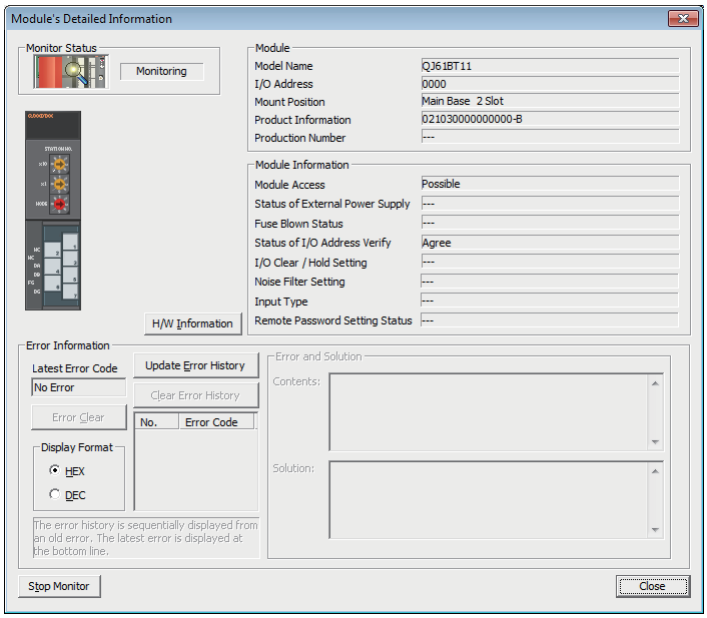
Status	Base-Slot	Series	Model Name	Point	Parameter		I/O Address	Network No. Station No.	Master CPU
					Type	Point			
	-	-	Power	-	Power	-	-	-	-
⚠	CPU	Q	Q24DHCCPU-V	-	CPU	-	-	-	-
	0-0	-	Empty	-	Empty	0Point	-	-	-
	0-1	-	Empty	-	Empty	0Point	-	-	-
	0-2	Q	QJ61CL12	16Point	Intelli.	16Point	0030	-	-
	0-3	Q	QJ61BT11	32Point	Intelli.	32Point	0050	-	-
	0-4	-	Empty	-	Empty	16Point	0070	-	-

10.9.1 Checking module's detailed information

Display the module information of the selected module.

Screen display

Select a module on the "System Monitor" screen and click the Detailed Information button.
The following is an example of the "Module's Detailed Information" screen when QJ61BT11 is selected.



Screen button

- H/W Information

  Displays the hardware LED information and the hardware switch information. (Page 190, Section 10.9)

- Update Error History

  Updates the error history of the module.

- Error Clear

  Clears the error displayed in "Latest Error Code".

CHAPTER 11 SAMPLE PROGRAMS

Sample programs are provided as a reference used for creating user programs.
Use the sample programs at user's own discretion.

11.1 List of Sample Programs

The sample programs are registered in the following folder configuration when Setting/monitoring tools for the C Controller module is installed in a development environment (personal computer).

<User-specified folder>-<CCPU4>-<CCPUTool>-<Sample>-<Q24DHCCPU-V>

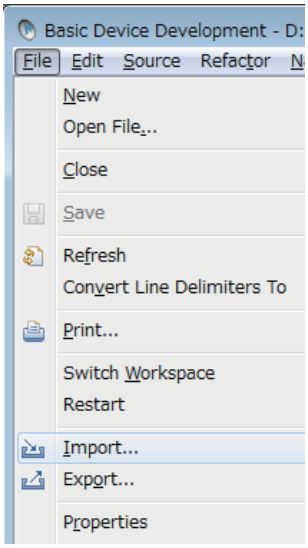
The following table shows the list of sample programs registered in <Q24DHCCPU-V>.

Folder name		File name	Description
QBFtest	SDChange	SDChange.c	For unmounting an SD memory card when X0 turns on
	EntryWDTInt	EntryWDTInt.c	For user watchdog timer error interrupt registration
	MotionLink	MotionLink.c	The linkage with the Motion CPU is utilized for this sample program
	QBFMessage	QBFMessage.c	For sending messages via MELSECNET/H or CC-Link IE Controller Network
Script	ROMFormat	STARTUP.CMD	Sample script file for standard ROM formatting
	RAMFormat	STARTUP.CMD	Sample script file for standard RAM formatting
Others	FTPGet	FTPGet.c	For FTP communication
	MakeRAMDisk	MakeRAMDisk.c	For RAM disk creation
	QPParamSet	QPParamSet.c	For automatic transfer of the parameter file created in GX Configurator-QP to a positioning module
	QD75Status	QD75Status.c	For 1-shot monitoring of the positioning module status (current feed value, axis error No., and axis warning No.)
	SDTaskPrioritySet	SDTaskPrioritySet.c	For priority (default: 50) change of the system task (XBD service task) which operates when accessing to an SD memory card
	DispErrorCode	DispErrorCode.c	For displaying an error code on the dot matrix LED when an error occurs
	CCIEField	LocalStation.c	For performing cyclic transmission with the master station in the CC-Link IE Field Network
		MasterStation_LocalStation.c	For performing cyclic transmission with the local station in the CC-Link IE Field Network
		MasterStation_RemoteIO.c	For performing cyclic transmission with the intelligent device station in the CC-Link IE Field Network

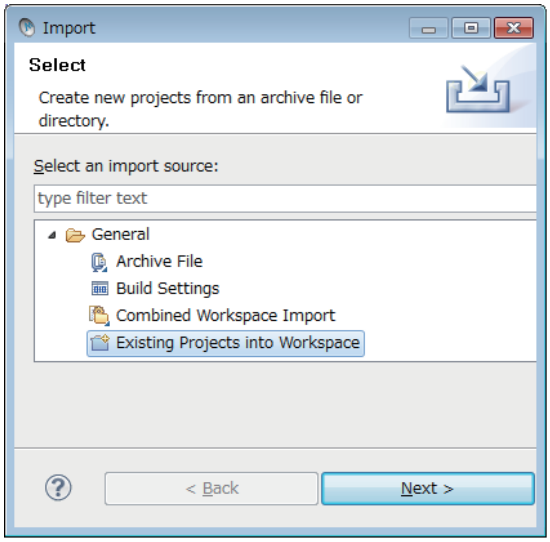
Folder name		File name	Description
MDtest	DevAccess	DevAccessChanCCIEC.c	For accessing the following modules using MELSEC data link functions • A CC-Link IE Controller Network module (own station) controlled by the C Controller module • CC-Link IE Controller Network modules or programmable controller CPUs on other stations via a CC-Link IE Controller Network module controlled by the C Controller module
		DevAccessChanCCIEF.c	For accessing the following modules using MELSEC data link functions • A CC-Link IE Field Network master/local module (own station) controlled by the C Controller module • CC-Link IE Field Network master/local modules or programmable controller CPUs on other stations via a CC-Link IE Field Network master/local module controlled by the C Controller module
		DevAccessChanCCL.c	For accessing the following modules using MELSEC data link functions • A CC-Link module (own station) controlled by the C Controller module • CC-Link modules or programmable controller CPUs on other stations via a CC-Link module controlled by the C Controller module
		DevAccessChanMNH.c	For accessing the following modules using MELSEC data link functions • A MELSECNET/H module (host station) controlled by the C Controller module • MELSECNET/H modules or programmable controller CPUs on other stations via a MELSECNET/H module controlled by the C Controller module
		DevAccessChanQBF.c	For accessing the following modules using MELSEC data link functions • CPU No.1 mounted together with the C Controller module in a multiple CPU system

11.2 Procedure for Opening Sample Programs

This section explains how to open sample programs when Setting/monitoring tools for the C Controller module is installed in "C:\MELSEC".
When installing Setting/monitoring tools for the C Controller module in folders other than "C:\MELSEC", create a new project with reference to the following procedure. Copying the content of the sample program to the source file enables the compiling.
CW Workbench Operating Manual



① Start Workbench.
② Select [File] → [Import].

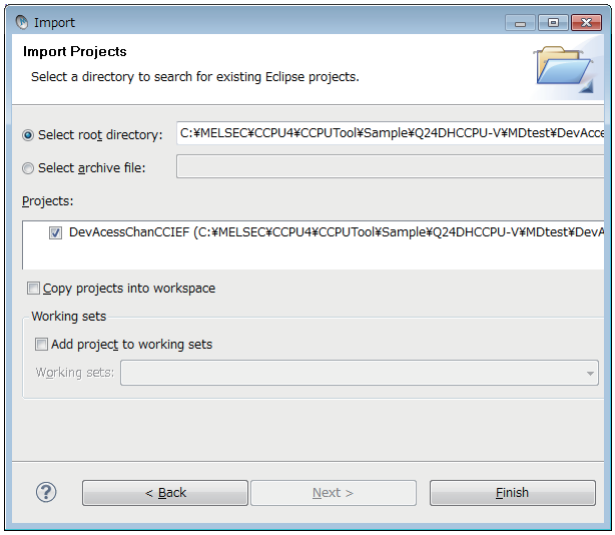


③ Select [General] → "Existing Projects into Workplace", and click the Next > button.

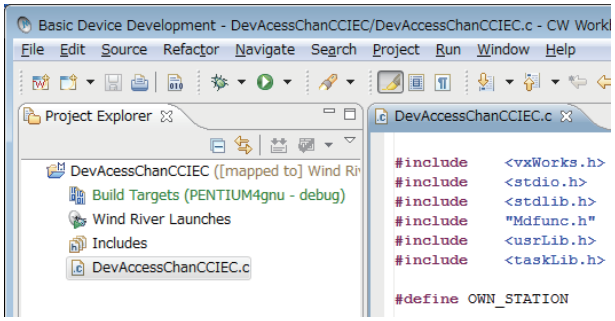
(To the next page)

(From the previous page)

↓



↓



↓

(Completed)

④ Specify the name of the directory in which the source file of the sample program is stored for "Select root directory".
Confirm the sample program for "Projects" is selected, and click the Finish button.

⑤ The sample program can be opened by double-clicking the file name of the sample program of the imported project.

CHAPTER 12 TROUBLESHOOTING

This chapter explains the troubleshooting for errors occurred in Setting/monitoring tools for the C Controller module.

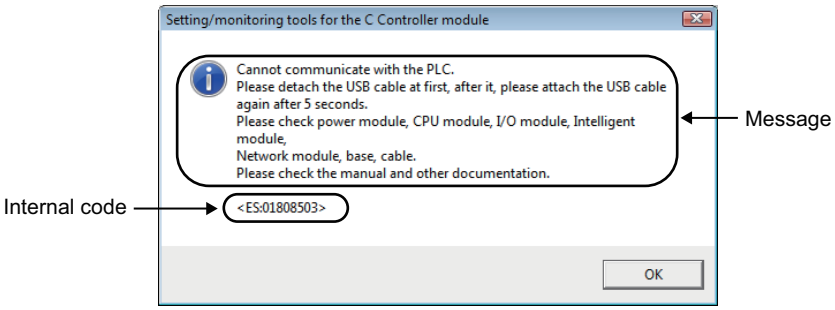
(1) When the performance of Setting/monitoring tools for the C Controller module is unstable

Check item	Corrective action
Setting/monitoring tools for the C Controller module is used on the highly-loaded personal computer.	Use Setting/monitoring tools for the C Controller module after reducing the load on the personal computer. • Terminate unnecessary applications. • Close the unnecessary windows opened in Setting/monitoring tools for the C Controller module (or stop monitoring).

(2) When the display of Setting/monitoring tools for the C Controller module is corrupted

Check item	Corrective action
The Windows® 7 Aero function is used.	Disable the Aero function.
The graphic driver installed on the personal computer is old.	Use the most recent graphic driver.

(3) Message box


Setting/monitoring tools for the C Controller module
Cannot communicate with the PLC.
Please detach the USB cable at first, after it, please attach the USB cable again after 5 seconds.
Please check power module, CPU module, I/O module, Intelligent module,
Network module, base, cable.
Please check the manual and other documentation.
Message
Internal code
<ES:01808503>
OK

Item	Description	Corrective action
Message	Display the current situation and the troubleshooting.	Follow the instruction.
Internal code	Display the internal code.	If the similar message is displayed even after the troubleshooting is performed, please consult your local Mitsubishi service center or representative, explaining the details of the problem. (Provide the internal code.)

APPENDIX

Appendix 1 Considerations of Installation

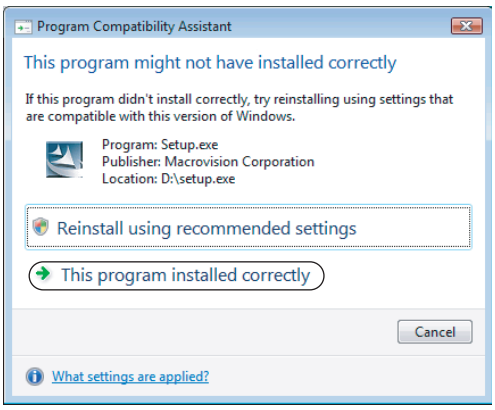
This section explains the considerations of installation.

Appendix 1.1 Considerations when installing Setting/monitoring tools for the C Controller module or MELSOFT products

The following explains the considerations when installing Setting/monitoring tools for the C Controller module or other MELSOFT products.

(1) Considerations when installing on Windows Vista® or Windows® 7

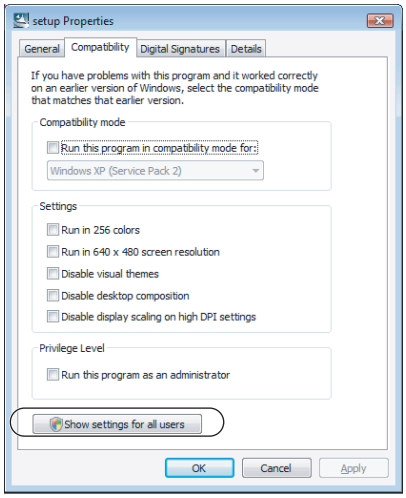
When installing on Windows Vista® or Windows® 7, the following screen may be displayed after the completion of the installation. In this case, select "This program installed correctly" and restart the personal computer.


Program Compatibility Assistant
This program might not have installed correctly
If this program didn't install correctly, try reinstalling using settings that are compatible with this version of Windows.
Program: Setup.exe
Publisher: Macrovision Corporation
Location: D:\setup.exe
Reinstall using recommended settings
This program installed correctly
Cancel
What settings are applied?

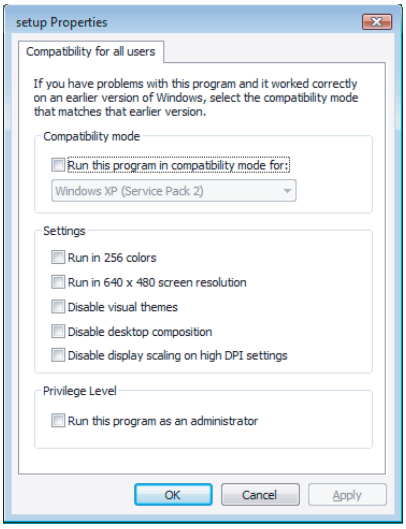
When "Reinstall using recommended settings" is erroneously selected, the Windows XP SP2 compatibility mode is automatically set. Disable the Windows XP SP2 compatibility mode by following the procedure described below, and perform the reinstallation.

Operating procedure

1. **Right-click on the setup.exe icon of the installation target in the Windows® Explorer.**
   The "setup Properties" screen is displayed.
2. **Click the [Show settings for all users] button on the <<Compatibility>> tab.**

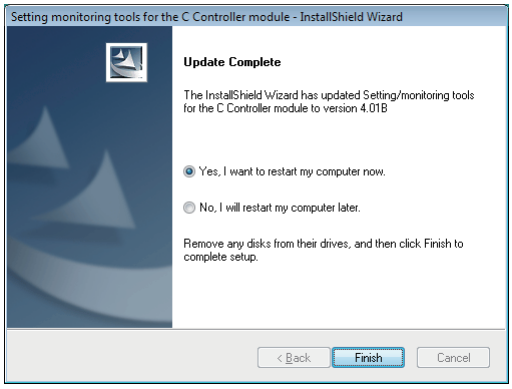

setup Properties
General
Compatibility
Digital Signatures
Details
If you have problems with this program and it worked correctly on an earlier version of Windows, select the compatibility mode that matches that earlier version.
Compatibility mode
Run this program in compatibility mode for:
Windows XP (Service Pack 2)
Settings
Run in 256 colors
Run in 640 x 480 screen resolution
Disable visual themes
Disable desktop composition
Disable display scaling on high DPI settings
Privilege Level
Run this program as an administrator
Show settings for all users
OK
Cancel
Apply

3. **Clear "Run this program in compatibility mode for:" and click the [OK] button.**
4. **Click the [OK] button.**


setup Properties
Compatibility for all users
If you have problems with this program and it worked correctly on an earlier version of Windows, select the compatibility mode that matches that earlier version.
Compatibility mode
Run this program in compatibility mode for:
Windows XP (Service Pack 2)
Settings
Run in 256 colors
Run in 640 x 480 screen resolution
Disable visual themes
Disable desktop composition
Disable display scaling on high DPI settings
Privilege Level
Run this program as an administrator
OK
Cancel
Apply

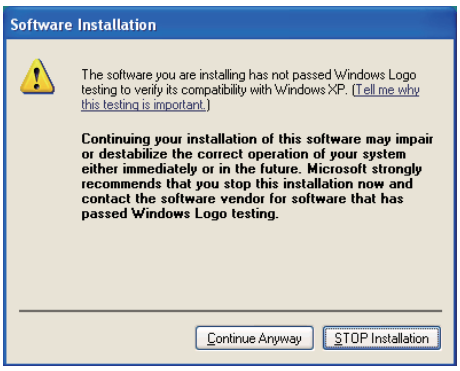
(2) Procedure for continuing installation when it is not completed correctly

When the installation of a MELSOFT product or another software is not completed correctly, the following screen is displayed and the installation cannot continue unless the personal computer is restarted.
In this case, restart the personal computer and start the installation again.


Setting monitoring tools for the C Controller module - InstallShield Wizard
Update Complete
The InstallShield Wizard has updated Setting/monitoring tools for the C Controller module to version 4.01B
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
< Back
Finish
Cancel

(3) Consideration when installing a MELSOFT product on Windows® XP for the first time

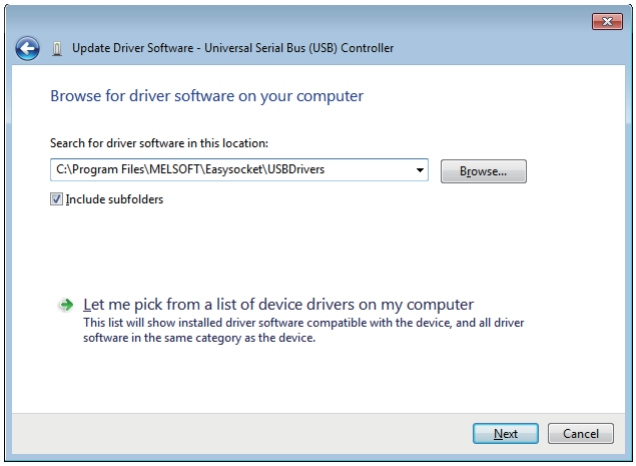
At the first installation of a MELSOFT product on Windows® XP, the following screen may be displayed during installation. To continue the installation, click the Continue Anyway button on the "Software Installation" screen. (We have checked the operation and assured that the system operates without any problems by performing this procedure.)
The "Software Installation" screen may be displayed behind another screen. Press the Alt + the Tab keys to bring it to the front.


Software Installation
The software you are installing has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the software vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Appendix 1.2 USB driver installation

In order to communicate with a programmable controller CPU via USB, a USB driver needs to be installed.
The following explains the procedure of USB driver installation.

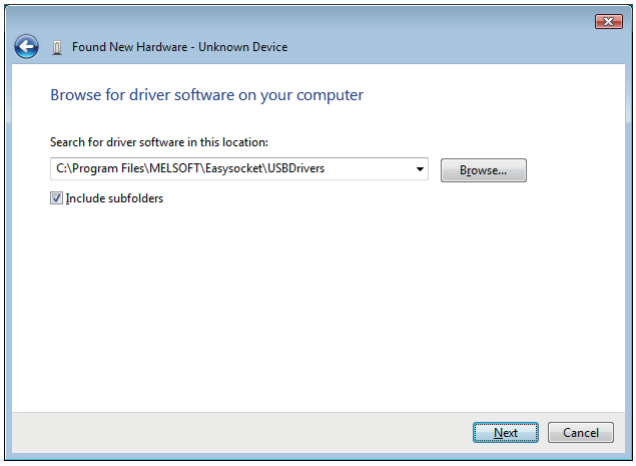
(1) When using Windows® 7


Update Driver Software - Universal Serial Bus (USB) Controller
Browse for driver software on your computer
Search for driver software in this location:
C:\Program Files\MELSOFT\Easysocket\USBDrivers
Browse...
Include subfolders
Let me pick from a list of device drivers on my computer
This list will show installed driver software compatible with the device, and all driver software in the same category as the device.
Next
Cancel

Operating procedure

1. **Connect the personal computer and the programmable controller CPU with a USB cable, and then turn on the programmable controller CPU.**
2. **From Windows® Control Panel, select [System and Security] - [Device Manager]. Right-click "Unknown device" and click "Update Driver Software".**
3. **The "Update Driver Software" screen is displayed. Select "Browse my computer for driver software" and specify "Easysocket\USBdrivers" in the folder where Setting/monitoring tools for the C Controller module has been installed on the displayed screen. If multiple MELSOFT products are installed previously, refer to their installed location.**

(2) When using Windows Vista®



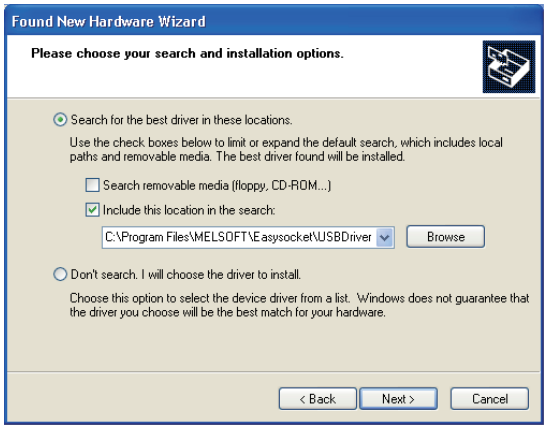
Operating procedure

1. **Connect the personal computer and the programmable controller CPU with a USB cable, and then turn on the programmable controller CPU.**
2. **The "Found New Hardware" screen is displayed. Select "Locate and install driver software (recommended)".**
3. **Select "Browse my computer for driver software (advanced)" on the "Found New Hardware" screen.**
4. **Specify "Easysocket\USBDrivers" in the folder where Setting/monitoring tools for the C Controller module has been installed on the displayed screen. If multiple MELSOFT products are installed previously, refer to their installed location. Check "Include subfolders".**

Point

- Considerations when installing USB driver
  When the "Windows can't verify the publisher of this driver software" screen is displayed during the installation, select "Install this driver software anyway".

(3) When using Windows® XP


Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
C:\Program Files\MELSOFT\Easysocket\USBDriver
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

Operating procedure

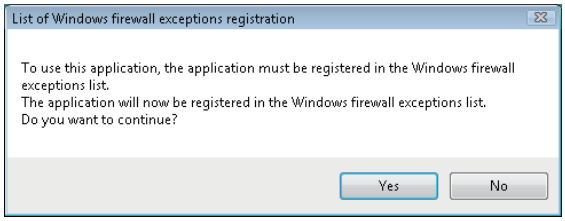
1. **Connect the personal computer and the programmable controller CPU with a USB cable, and then turn on the programmable controller CPU.**
2. **The "Found New Hardware Wizard" screen is displayed. Select "Install from a list or specific location (Advanced)".**
3. **Select "Search for the best driver in these locations" on the displayed screen.**
   Select "Include this location in the search", and then set "Easysocket\USBDrivers" in the folder where Setting/monitoring tools for the C Controller module has been installed. If multiple MELSOFT products are installed previously, refer to their installed location.

Point

- Considerations when installing USB driver
  If the USB driver cannot be installed, confirm the following Windows® settings.
  - If "Block - Never install unsigned driver software" is selected under [Control Panel] - [System] - [Hardware] - [Driver Signing], the USB driver may not be installed.
    Select "Ignore - Install the software anyway and don't ask for my approval", or "Warn - Prompt me each time to choose an action" in [Driver Signing], and execute the USB driver installation.

Appendix 1.3 Setting Windows® Firewall

Windows® Firewall needs to be set to connect a personal computer with a C Controller module.
The following screen is displayed during the installation of Setting/monitoring tools for the C Controller module.

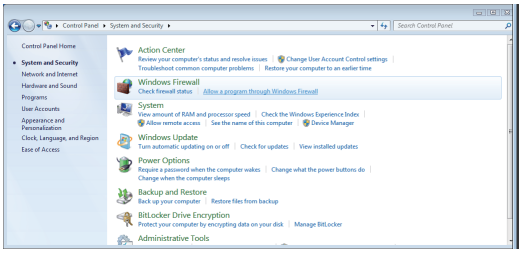

List of Windows firewall exceptions registration
To use this application, the application must be registered in the Windows firewall exceptions list.
The application will now be registered in the Windows firewall exceptions list.
Do you want to continue?
Yes
No

- **Click the "YES" button to set the firewall at once.**
  The program is automatically registered as an allowed program.
  If Windows® Firewall is set to block the connection of exceptions, set Windows® Firewall manually.
- **Click the "No" button to set the firewall after the installation.**
  Windows® Firewall must be set manually after the installation.

(1) When using Windows® 7

If Windows® Firewall was not set during the installation, set it by following the procedure below.

↓



↓

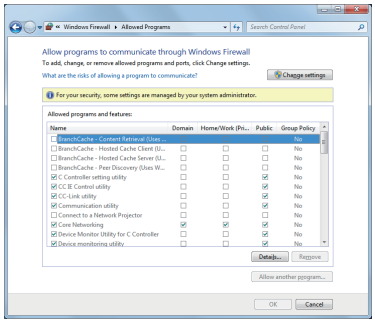
(To the next page)

1. **Open Windows® Control Panel.**
Click "System and Security".

2. **Click "Allow a program through Windows® Firewall".**

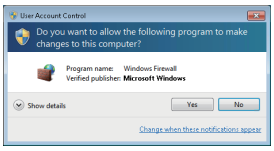
(From the previous page)

↓



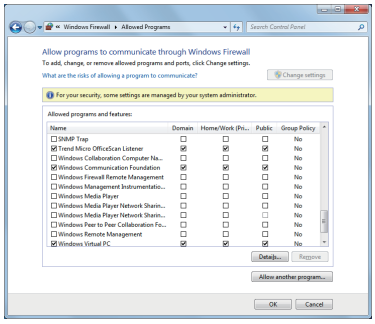
3. **Click the "Change settings" button.**

↓


User Account Control
Do you want to allow the following program to make changes to this computer?
Program name: Windows Firewall
Verified publisher: Microsoft Windows
Show details
Yes
No
Change when these notifications appear

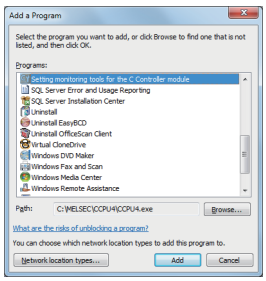
4. **When the screen as shown on the left is displayed, click the "Yes" button.**

↓



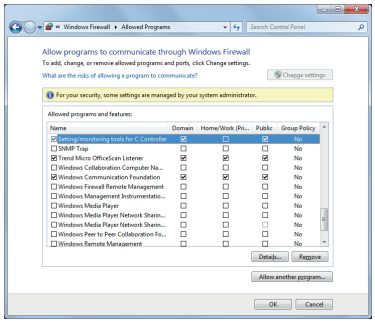
5. **The list of allowed programs and functions is displayed.**
Check if "Setting/monitoring tools for the C Controller module" is included.

↓


Add a Program
Select the program you want to add, or click Browse to find one that is not listed, and then click OK.
Programs:
Setting monitoring tools for the C Controller module
SQL Server Error and Usage Reporting
SQL Server Installation Center
Uninstall
Uninstall EasyBCD
Uninstall OfficeScan Client
Virtual CloneDrive
Windows DVD Maker
Windows Fax and Scan
Windows Media Center
Windows Remote Assistance
Path:
C:\MELSEC\CCPU4\CCPU4.exe
Browse...
What are the risks of unblocking a program?
You can choose which network location types to add this program to.
Network location types...
Add
Cancel

6. **When "Setting/monitoring tools for the C Controller module" is not in the list, click the "Allow another program" button to display the screen as shown on the left.**
Select "Setting/monitoring tools for the C Controller module", and click the "Add" button.

↓



7. **Select "Name" and "Public" of "Setting/monitoring tools for the C Controller module".**
Click the "OK" button.

↓

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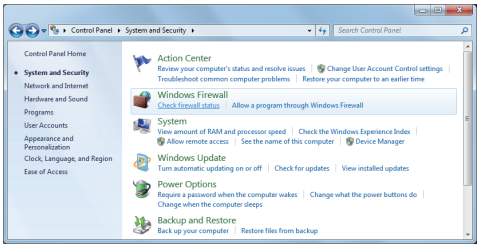
(From the previous page)

↓


Control Panel ▸ System and Security ▸
Search Control Panel
Control Panel Home
System and Security
Network and Internet
Hardware and Sound
Programs
User Accounts
Appearance and Personalization
Clock, Language, and Region
Ease of Access
Action Center
Review your computer's status and resolve issues | Change User Account Control settings
Troubleshoot common computer problems | Restore your computer to an earlier time
Windows Firewall
Check firewall status | Allow a program through Windows Firewall
System
View amount of RAM and processor speed | Check the Windows Experience Index
Allow remote access | See the name of this computer | Device Manager
Windows Update
Turn automatic updating on or off | Check for updates | View installed updates
Power Options
Require a password when the computer wakes | Change what the power buttons do
Change when the computer sleeps
Backup and Restore
Back up your computer | Restore files from backup

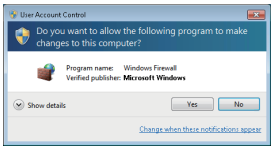
8. **Click "Check firewall status".**

↓

Control Panel ▸ System and Security ▸ Windows Firewall ▸
Search Control Panel
Control Panel Home
Allow a program or feature through Windows Firewall
Change notification settings
Turn Windows Firewall on or off
Restore defaults
Advanced settings
Troubleshoot my network
See also
Action Center
Network and Sharing Center
Help protect your computer with Windows Firewall
Windows Firewall can help prevent hackers or malicious software from gaining access to your computer through the Internet or a network.
How does a firewall help protect my computer?
What are network locations?
For your security, some settings are managed by your system administrator.
Update your Firewall settings
Windows Firewall is not using the recommended settings to protect your computer.
Use recommended settings
What are the recommended settings?
Domain networks
Connected

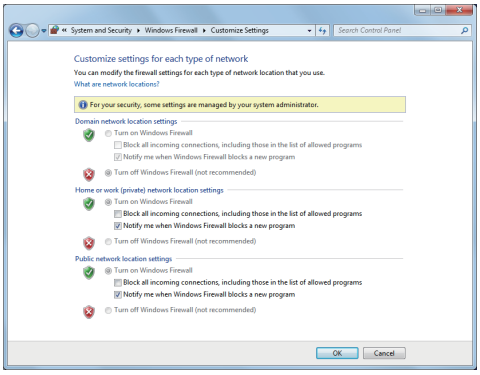
9. **Click "Turn Windows Firewall on or off".**

↓


User Account Control
Do you want to allow the following program to make changes to this computer?
Program name: Windows Firewall
Verified publisher: Microsoft Windows
Show details
Yes
No
Change when these notifications appear

10. **When the screen as shown on the left is displayed, click the "Yes" button.**

↓


System and Security ▸ Windows Firewall ▸ Customize Settings ▸
Search Control Panel
Customize settings for each type of network
You can modify the firewall settings for each type of network location that you use.
What are network locations?
For your security, some settings are managed by your system administrator.
Domain network location settings
Turn on Windows Firewall
Block all incoming connections, including those in the list of allowed programs
Notify me when Windows Firewall blocks a new program
Turn off Windows Firewall (not recommended)
Home or work (private) network location settings
Turn on Windows Firewall
Block all incoming connections, including those in the list of allowed programs
Notify me when Windows Firewall blocks a new program
Turn off Windows Firewall (not recommended)
Public network location settings
Turn on Windows Firewall
Block all incoming connections, including those in the list of allowed programs
Notify me when Windows Firewall blocks a new program
Turn off Windows Firewall (not recommended)
OK
Cancel

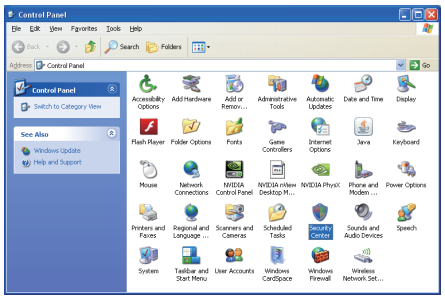
11. **Check if the checkbox of "Block all incoming connections, including those in the list of allowed programs" is cleared.**
Click the "OK" button.
If the checkbox is selected, clear the checkbox and click the "OK" button.

↓

(Complete)

(2) When using Windows® XP or Windows Vista®

If Windows® Firewall was not set during the installation, set it by following the procedure below.



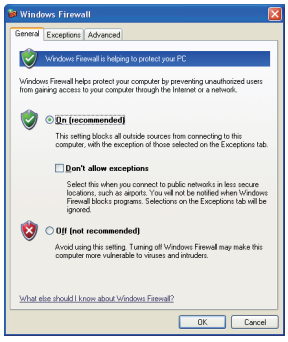
↓

1. **Open Windows® Control Panel.**
Click the following icon according to the operating system.

- Windows® XP: Security Center
- Windows Vista®: Security

↓

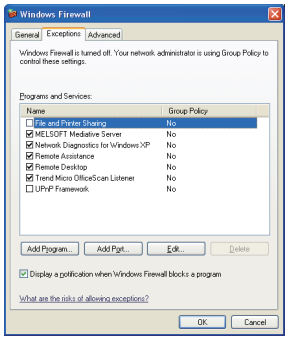
2. **Click "Windows Firewall".**



↓

3. **Open the <<General>> tab.**
Clear the checkbox of the following item according to the operating system.

- Windows® XP: Don't allow exceptions
- Windows Vista®: Block all incoming connections



↓

4. **Open the <<Exceptions>> tab.**
Check if "Setting/monitoring tools for the C Controller module" is included.

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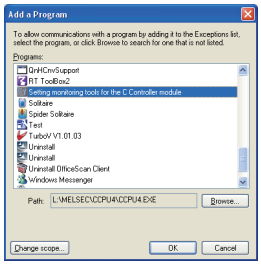

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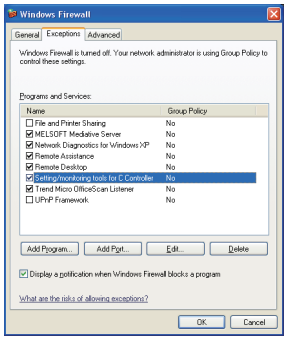

↓

(Complete)

5. **When "Setting/monitoring tools for the C Controller module" is not in the list, click the "Add Program" button to display the screen as shown on the left. Select "Setting/monitoring tools for the C Controller module", and click the "OK" button.**

6. **Select "Setting/monitoring tools for the C Controller module".**
Click the "OK" button.

Appendix 2 Functions Added Since Previous Versions

This section shows major functions added/changed with upgrade.

Version	Major function added/changed	Description	Reference
Version 4.01B	Intelligent function module	The following modules are supported. • QD75 Type Positioning Module (QD75P1N, QD75P2N, QD75P4N, QD75D1N, QD75D2N, QD75D4N)	Page 91, Section 5.3
	System monitor	The following modules are supported. • QD75 Type Positioning Module (QD75P1N, QD75P2N, QD75P4N, QD75D1N, QD75D2N, QD75D4N)	Page 190, Section 10.9
Version 4.02C	Intelligent function module	The following modules are supported. • QD70 Type Positioning Module (QD73A1) • Analog Module (Q64ADH, Q64DAH, Q68CT) • Energy Measuring Module (QE81WH, QE81WH4W, QE82LG, QE83WH4W, QE84WH) • MODBUS® Interface Module (QJ71MT91, QJ71MB91) • AS-i Master Module (QJ71AS92)	Page 91, Section 5.3
	System monitor	The following modules are supported. • High-speed Universal model QCPU (Q03UDVCPU, Q04UDVCPU, Q06UDVCPU, Q13UDVCPU, Q26UDVCPU) • High Speed Data Communication Module (QJ71DC96) • QD70 Type Positioning Module (QD73A1) • Analog Module (Q64ADH, Q64DAH, Q68CT) • Energy Measuring Module (QE81WH, QE81WH4W, QE82LG1, QE83WH4W, QE84WH) • MODBUS® Interface Module (QJ71MT91, QJ71MB91) • AS-i Master Module (QJ71AS92)	Page 190, Section 10.9
	Device monitor	The following modules are supported. • High-speed Universal model QCPU (Q03UDVCPU, Q04UDVCPU, Q06UDVCPU, Q13UDVCPU, Q26UDVCPU)	Page 116, Section 8.2
	Project	A project can be saved in the single file format.	Page 39, Section 4.2.2 Page 41, Section 4.2.3
	II/O assignment	Parameters for multiple CPU can be utilized from projects in the single file format.	Page 66, Section 5.1.1 (5)(c)
	Multiple CPU setting		
	System Ethernet port (S CH1) settings	The open setting function is supported.	Page 73, Section 5.1.1 (8)(a)
	Security	The security setting function is supported.	Page 80, Section 5.1 (12)
	Diagnosing CC-Link IE Field Network	L series-compatible CC-Link IE Field Network is supported. Intelligent device station (GOT) is supported.	Page 152, Section 10.6
Version 4.03D	CPU type	The following modules is supported. • Q24DHCCPU-LS	Page 38, Section 4.2.1
	Change CPU type	The following modules is supported. • Q24DHCCPU-LS	Page 49, Section 4.2.8
	System monitor	The following modules is supported. • Q24DHCCPU-LS	Page 190, Section 10.9
	Device monitor	The following modules is supported. • Q24DHCCPU-LS	Page 116, Section 8.2

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REVISIONS

*The manual number is given on the bottom left of the back cover.

Print date	*Manual number	Revision
Dec., 2012	SH(NA)-081131ENG-A	First edition
Apr., 2013	SH(NA)-081131ENG-B	Addition Appendix 2 Correction RELEVANT MANUALS, GENERIC TERMS AND ABBREVIATIONS, Section 3.1, Section 4.2.2, Section 4.2.3, Section 5.1.1
Jul., 2013	SH(NA)-081131ENG-C	Addition Section 4.2.8 Correction RELEVANT MANUALS, GENERIC TERMS AND ABBREVIATIONS, Section 1.3, Section 2.3, Section 4.2.1, Section 5.1.1, Appendix 2

Japanese manual version SH-081076-D

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Setting/Monitoring Tools for the C Controller Module Version 4 Operating Manual

MODEL	SW4PVC-CCPU-O-E
MODEL CODE	13JU76
SH(NA)-081131ENG-C(1307)KWIX	

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